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U.S. ARMS CONTROL AND DISARMAMENT AGENCY 1984 ANNUAL REPORT

MESSAGE

FROM

THE PRESIDENT OF THE UNITED STATES

TRANSMITTING

THE 24TH ANNUAL REPORT OF THE U.S. ARMS CONTROL AND DISARMAMENT AGENCY, COVERING CALENDAR YEAR 1984, PURSUANT TO SECTION 50 OF THE ARMS CONTROL AND DISARMAMENT ACT, AS AMENDED (75 STAT. 639, 89 STAT. 760)

APRIL 1985

Printed for the use of the Committees on Foreign Relations and Foreign Affairs of the Senate and the House of Representatives respectively

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FOREWORD

As mandated by Congress, the President submitted the 1984 Annual Report of the Arms Control and Disarmament Agency on February 11, 1985. It is our hope that this report, along with continuing cooperation with the executive branch, will help the Congress to consider arms control policies, and make decisions which enhance our country's national security.

ACDA has primary responsibility for the coordination of U.S. arms control policy and the negotiation of arms control agreements with other governments. This responsibility has become weightier because of the recently re-opened Geneva arms control talks which include strategic and intermediate-range nuclear weapons and space and defensive arms. Meaningful work in the renewed talks, and continued diligence in other areas of arms control will require skill, dedication and hard work in the U.S. Government, particularly within the Arms Control and Disarmament Agency. Since the congressional creation of ACDA in 1961, both the Committees on Foreign Relations and on Foreign Affairs have believed that the Agency can and should play a vital role in preparation of U.S. positions.

For our part, we can assure the administration and the Agency of our full cooperation and support for their efforts.

The views expressed in this report are those of the executive branch, and do not necessarily reflect those of the Senate Committee on Foreign Relations or the House Committee on Foreign Affairs.

RICHARD G. LUGAR,
Chairman, Committee on Foreign Relations,
DANTE B. FASCELL,
Chairman, Committee on Foreign Affairs.

LETTER OF SUBMITTAL

U.S. ARMS CONTROL AND DISARMAMENT AGENCY,
OFFICE OF THE DIRECTOR,
Washington, DC, January 31, 1985.

The PRESIDENT,
The White House.

MR. PRESIDENT: I am pleased to submit for your transmittal to the Congress, as required by the Arms Control and Disarmament Act (22 U.S.C. 2590), this 24th Annual Report of the United States Arms Control and Disarmament Agency.

Sincerely,

KENNETH L. ADELMAN.

Enclosure: As stated.

LETTER OF TRANSMITTAL

To the Congress of the United States:

The security of our people, the primary responsibility of the Federal government, is accomplished through the complementary objectives of a strong defense capability and unambiguous and credible arms control agreements. While we have made substantial progress in rebuilding our defenses during the past four years, progress in arms control has not kept pace.

It is my intention in the next four years to do everything possible to find practical arrangements with the Soviet Union that will sharply reduce nuclear weapons. Arms control negotiations are surely the best way for pursuing such important objectives, and thus, I view with the utmost seriousness the negotiating commitments made with the Soviet Union four weeks ago in Geneva. We are now prepared to address not only nuclear offensive systems, but also strategic defenses and the essential improvements in verification.

In addition to these new bilateral arms control efforts, a number of multilateral activities play significant roles in our comprehensive arms control program. For example, discussions are being directed to banning chemical weapons and to reaching agreement on measures that will build confidence in understanding the activities and intentions of adversaries. This 24th Annual Report of the United States Arms Control and Disarmament Agency describes these and all the many facets of the Administration's 1984 program. I am pleased to forward it to the Congress.

RONALD REAGAN.

THE WHITE HOUSE, *February 11, 1985.*

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EXECUTIVE SUMMARY

In 1984 the United States vigorously continued its efforts to resume and expand the bilateral arms control dialogue with the Soviet Union. With the exception of improvements to the US-Soviet communications system ("Hotline") and two Standing Consultative Commission (SCC) rounds these efforts were complicated by the continuing Soviet reluctance to take concrete action with respect to bilateral arms control negotiations. Irrespective of this diminished bilateral arms control activity with the Soviet Union, the United States was engaged with the Soviet Union and other countries in three sets of multilateral negotiations, the 39th United Nation General Assembly (UNGA) sessions, and international preparatory meetings directed to the preparation of the agenda for the 1985 Non-Proliferation Treaty (NPT) Review Conference. ACDA was involved directly in these formal international fora and in the development of supporting documents, position papers and research material concerned with all facets of arms control. Some of the research was directed to a better understanding of the Soviet Union and its military build-up; other research was completed on verification of and compliance with previously negotiated arms control agreements; on the impact of new US weapons systems on arms control positions, and on the impact of arms and technology transfers on regional stability.

The Soviet Union proposed in June 1984 that talks on the "militarization of outer space" should begin in Vienna in September 1984. But after the United States accepted that proposal and suggested inclusion of talks on reducing offensive weapons, the Soviets reversed their position and rejected the convening of such talks.

The United States continued actively throughout the year to pursue ways to resume the arms control negotiations on strategic and intermediate-range nuclear weapons which the Soviets unilaterally suspended at the end of 1983. In this connection, the President proposed, in his September speech before the United Nations General Assembly, "umbrella talks" to permit a broad exchange on arms control issues. The United States also carried on an active arms control dialogue with Soviet leaders, including a meeting between President Reagan and Soviet Foreign Minister Gromyko. As a result of these initiatives, the United States and the Soviet Union jointly announced on November 23 the decision to enter into new arms control negotiations with the objective of reaching mutually acceptable agreements on the whole range of questions concerning nuclear offensive, defensive, and space arms, beginning with an initial meeting between Secretary of State Schultz and Foreign Minister Gromyko in Geneva on January 7-8, 1985.

The Standing Consultative Commission met in two regular sessions in Geneva during the year--March 21 to May 18 and

October 2 to December 12. This Commission, comprised of US and Soviet representatives and provided for under the SALT I agreement, continued its work of reviewing jointly the implementation of and compliance with arms control agreements.

The tabling of the US draft treaty on chemical weapons at the Geneva Conference on Disarmament in April was an important milestone in progress toward a world free of chemical weapons. As a consequence of that draft treaty, the United States was able to engage the Soviet Union in bilateral discussions on chemical weapons. Other activities at the Conference on Disarmament during the year included discussions on banning radiological weapons, on the verification of nuclear test limitations, and on the prevention of an arms race in outer space.

The first review conference on the Environmental Modification Treaty was held in Geneva in September. All 54 parties to the Treaty expressed satisfaction with the operation of the Treaty.

The United States delegation to the First Committee of the 39th United Nations General Assembly during the fall of 1984 tabled a resolution concerning the illegal use of chemical weapons; this resolution was passed in the General Assembly by a margin of 118 to 16 (with 14 abstentions). The delegation supported First Committee resolutions calling for the observance of the Geneva Protocol, for resumption of nuclear weapon negotiations, and on plans for the third review conference of the Non-Proliferation Treaty.

At the Mutual and Balanced Force Reductions talks in Vienna the West presented a new initiative in April which was designed to modify the 1982 Western draft treaty and which took into account Eastern concerns over data exchange. The initiative called for initial data exchange only on ground combat and combat support forces of the two sides with the data falling within acceptable ranges of the sides' estimates rather than requiring agreement on precise figures. The initiative also introduced procedures for effecting troop reductions in an orderly manner. While there has been no substantive response from the East on this initiative, agreement has been reached on the final ground and air force troop levels, the need for cooperative verification measures, and the exchange of information on military forces and activities.

The Conference on Confidence and Security Building Measures and Disarmament in Europe began its sessions January 17, 1984, in Stockholm. US goals for the conference include reducing the risk of surprise attack in Europe by providing greater predictability regarding military activities, reducing the risk of conflict through accident or miscalculation, enhancing emergency communications, and laying the basis for greater military openness. One accomplishment during the year was an agreement among the 35 participating states on a working group structure addressing the objectives.

The significant developments in the area of nuclear non-proliferation during the year were the two meetings of the Preparatory Committee for the 1985 NPT Review Conference, the agreement with Finland for peaceful nuclear cooperation, the signing of agreements with Norway and Sweden, and the decision by China to become a member of the International Atomic Energy Agency (IAEA). Work continued during the year on strengthening the nuclear safeguards regime.

ACDA missions include direct responsibility for specific negotiations, the analysis of intelligence information concerning compliance with negotiated arms control agreements, the review of arms transfer cases with respect to their effect on regional stability, the preparation of congressionally mandated arms control impact statements on US weapon systems meeting certain criteria, the analysis of national economies in the context of the diversion of resources to military activities, the publishing of annual Agency reports on arms control and on international military expenditures, and the statutory responsibility to support public information programs on arms control issues.

This Annual Report details these and other efforts.

ABBREVIATIONS AND ACRONYMS

ABM - Anti-Ballistic Missile
ACDA - Arms Control and Disarmament Agency
ACEP - Advisory Committee on Export Policy
ACIS - Arms Control Impact Statements
ACVC - Arms Control Verification Committee
AMs - Associated Measures
ASAT - Anti-satellite
BWC - Biological Weapons Convention
CBMs - Confidence-Building Measures
CD - Conference on Disarmament
CDE - Conference on Confidence and Security-building Measures and Disarmament in Europe
CSBMs - Confidence and Security-Building Measures
CSCE - Conference on Security and Cooperation in Europe
CW - Chemical Weapons
ENMOD - Environmental Modification Convention
GAC - General Advisory Committee
GLCM - Ground-Launched Cruise Missile
HEU - High-enriched Uranium
IAEA - International Atomic Energy Agency
ICBM - Intercontinental Ballistic Missile
INF - Intermediate-range Nuclear Forces
LRINF - Long-range Intermediate Nuclear Forces
LTBT - Limited Test Ban Treaty
MBFR - Mutual and Balanced Force Reductions
NATO - North Atlantic Treaty Organization
NNA - Neutral and Non-Aligned Countries
NPT - Treaty on the Non-Proliferation of Nuclear Weapons
NTM - National Technical Means
PNE - Peaceful Nuclear Explosion
POTAS - Program for Technical Assistance to IAEA Safeguards
RECOVER - Remote Continual Verification
RERTR - Reduced Enrichment in Research and Test Reactors
RV - Reentry Vehicle
SALT - Strategic Arms Limitation Talks
SCC - Standing Consultative Commission
SCG - Special Consultative Group
SDI - Strategic Defense Initiative
SIG/ST - Senior Interagency Group on the Transfer of Strategic Technology
SLBM - Sea-launched Ballistic Missile
START - Strategic Arms Reduction Talks
TRANSEAVER - Transport by Sea Verification
TSCC - Technical Support Coordinating Committee
TTBT - Threshold Test Ban Treaty
UNDC - United Nations Disarmament Commission
UNGA - United Nations General Assembly

1. PERSPECTIVES

Objectives

The fundamental objective of arms control, from the United States perspective, is to reduce the risk of war, especially nuclear war, by strengthening deterrence and by lowering levels of arms on an equitable and verifiable basis thereby fostering a more stable East-West relationship. Other goals include facilitating crisis management, reducing the destructiveness of war should it occur and lessening the cost of military forces. But the key test is can arms control lessen the chances of conflict, particularly any nuclear conflict, and thereby improve US security?

Past negotiations, as the President's Commission on Strategic Forces pointed out in April 1983, have "produced neither agreement among ourselves, restraint by the Soviets, nor lasting mutual limitations on strategic offensive weapons." Moreover, new technologies may challenge longheld assumptions about deterrence, stability and the relationship between offensive and defensive forces. On both counts, a reassessment is needed of our arms control approaches to see how progress might best be made.

President Reagan's Strategic Defense Initiative (SDI), proposed in March 1983, reflected that need. It called for a major research program to determine the feasibility for

shifting strategic nuclear strategy toward more reliance on defensive forces, that is, integrating strategic defense into strategic deterrence. This shift's ultimate goal would be to move away from the doctrine of mutual assured destruction and eventually eliminate the threat posed by nuclear-armed missiles.

Similarly, President Reagan's speech at the UN General Assembly last September also stressed the need for new thinking about arms control approaches. He called for the United States and the Soviet Union to establish a broader framework for arms control negotiations and a broader US-Soviet dialogue on the relationship between offensive and defensive forces, on weapons development and procurement plans, and on the path to future progress in the arms control arena.

The Geneva Beginning

Serious differences still divide the United States and Soviet Union over strategic and intermediate-range nuclear arms control, and opposite approaches have been taken by the two nations toward the President's Strategic Defense Initiative. Nonetheless a sufficient amount of common interest was identified at Geneva to warrant not only the resumption of negotiations on nuclear arms but also the beginning of talks on defensive and space arms, including those launched from earth into space.

Our agreement with the Soviets to begin new negotiations is a useful, first step. As Secretary Shultz stated, we have begun a serious dialogue on the substance of the most important strategic issues now facing our two nations. We hope that through this dialogue, we can eventually achieve deep reductions of nuclear arsenals and increased strategic stability that benefit both sides. Both sides have agreed to the eventual goal of the complete elimination of nuclear weapons. We hope that the Soviets will be as serious and as flexible as the US is prepared to be.

We and the Soviet Union agreed that in addition to a group addressing strategic arms and a group addressing intermediate-range nuclear forces, a third group would address defensive and space arms. In this forum, we plan to discuss ground-based systems which can attack targets in space, and space-based systems, as well as the possibility of moving more towards defense-oriented deterrence. We are prepared now to discuss space arms and the broader questions of strategic defense, including existing Soviet defenses.

Arms Control Means

Negotiated agreements, such as those the United States will seek in the negotiations with the Soviet Union under the Geneva framework, are essential to the arms control process. Only such agreements can codify specific quantitative and qualitative constraints. Such agreements are also essential

for spelling out verification procedures, particularly cooperative approaches necessary when national technical means are inadequate.

At the same time, the prospects could be explored for supplementing agreements incorporating traditional quantitative or qualitative constraints with less formal efforts to develop parallel, stabilizing US-Soviet policies. Such an approach is particularly appropriate in seeking constraints on force structure rather than on force levels alone. Coordination of our respective policies for developing stabilizing systems could contribute directly to lessening the risk of nuclear war. Further it could facilitate future codification of limits in agreements.

Increased dialoque on, and attention to, such security issues, among ourselves, the Soviets and other nations, can serve arms control goals and strengthen the norms of international conduct. Dialogue over the types and deployment of nuclear weapons could be a step toward a better conceptual framework for their constraint. Also exposure of violations and presentation of proposals for banning the development and use of chemical and biological weapons has rallied global opinion and strengthened political, if not formal, sanctions against these abhorent weapons.

Potential Role Of Strategic Defense For Deterrence

The role of strategic defense--and its relationship to offensive systems and to arms control--has long been a central issue. The US debate of the late 1960s over the desirability and efficacy of defenses against ballistic missiles was intense. It played an important role in the culmination of the ABM Treaty and in the deactivation of our only ABM site very shortly after it had become operational.

Since the Treaty, however, circumstances have changed. During the SALT I negotiations leading in May 1972 to an ABM Treaty of unlimited duration and an Interim Agreement for five years on strategic offensive arms, a fundamental US position was that both ABM systems and strategic offensive forces had to be constrained and that the strategic balance would be endangered if an agreement limited defensive forces alone but left the offensive threat unconstrained. President Nixon's 1972 foreign policy report to Congress declared that "An essential linkage between the substance and duration of documents dealing with offensive and defensive aspects must be preserved." On May 9, 1972, ACDA Director and SALT negotiator Ambassador Gerard Smith said that SALT II should "constrain and reduce on a long-term basis threats to the survivability of our respective retaliatory forces." Unfortunately, SALT II, signed in June 1979, did not meet the basic objective the US had set in 1972. Instead, it permitted a continuing buildup

of strategic offensive capabilities. (See Figures 1, 2, and 3 for trends in deployment of US and Soviet ICBM and SLCM launchers and re-entry vehicles, 1968-1984, and in force levels of intercontinental bombers, 1979-1984.)

After the Interim Agreement was concluded, the momentum in the buildup of Soviet strategic offensive forces, especially in large, MIRVed ICBMs, actually increased at a disturbing rate. The scope and pace of the Soviet fourth generation ICBM program -- with four new classes of ICBMs (SS-16, SS-17, SS-18, and SS-19) -- surprised the United States. The threat posed by the Soviet ICBM program (particularly with the SS-18 and the SS-19) to the stability of the strategic balance increased rather than being substantially constrained. This cast doubt on the assumption in 1972 that the Soviets had come to share US interest in strategic equilibrium.

Other circumstances have changed as well:

- The Soviets have been upgrading their permitted BMD system around Moscow, are working on a relatively rapidly deployable BMD system, and are also in the process of deploying a large phased-array radar near Krasnoyarsk which is almost certainly a violation of a key provision of the ABM Treaty;
- The Soviets are continuing to develop extensive air and civil defenses, having spent as much or

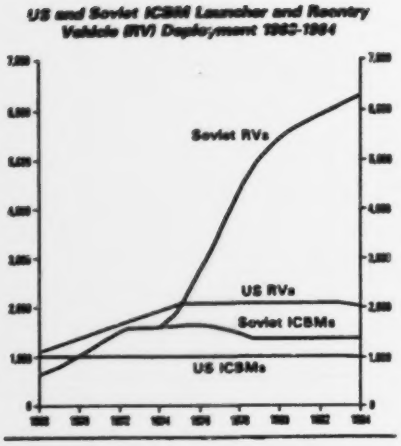


Figure 1

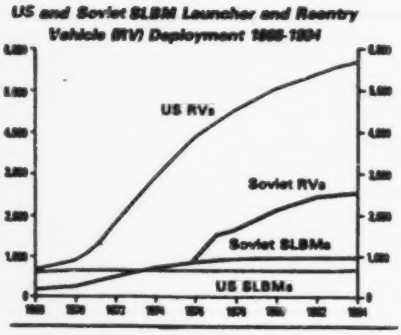
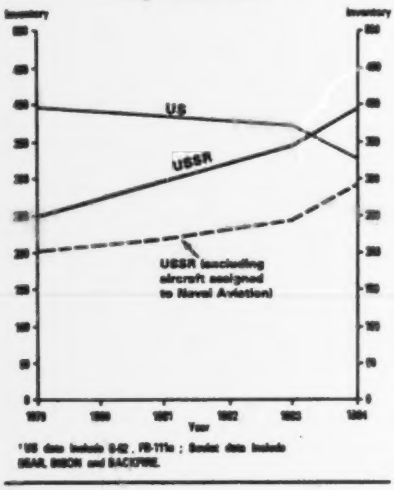


Figure 2



¹US data include B-52, FB-111s ; Soviet data include BEAR, BISON and BACKFIRE.

Figure 3

Source: Soviet Military Power 1984, Department of Defense

more on strategic defenses as on strategic offensive systems, while the United States has devoted a negligible share of its strategic budget to defense; and

- Technology has continued to progress at a rapid pace as both sides have pursued research into areas applicable to more effective BMD approaches, including directed energy.

In combination, the above developments have made a reassessment of the US approach to strategic defense in the early 1980s appropriate and desirable.

The basic US objective and moral imperative remains unchanged -- to reduce the risk of war--through accident, miscalculation or deliberate design. What is at issue is strategic defense's ability to serve that goal. To contribute, strategic missile defense would have to be cost effective and survivable, as well as technologically feasible.

Moreover, there are other difficulties. President Reagan noted in March 1983, "I clearly recognize that defensive systems have limitations and raise certain problems and ambiguities. If paired with offensive systems, they can be viewed as fostering an aggressive policy; and no one wants that."

But should effective defenses be developed, a step back from the threat of mutual annihilation would become possible. Even a less than perfect defense could markedly increase a

potential attacker's uncertainty about the likelihood of success, deterring the very preemption some fear.

The prospect of new forms of defensive systems challenges the ingenuity of East and West to develop a much deeper arms control dialogue. How best to deter nuclear conflict, the relationship of offensive and defensive forces, the uses of space are again questions for discussion.

With respect to outer space, however, the issue is not--as the Soviets have insisted--the so-called militarization of space. That has long since occurred, and both the United States and the Soviet Union already use space for such purposes as early warning and monitoring of arms control agreements. Instead, a broader dialogue would acknowledge that some military uses of space maintain stability and preserve peace. It also would recognize that space is not now and cannot be a sanctuary for support of hostile forces. But use of outer space can be prevented from destabilizing the military competition between East and West.

Decisions on whether to deploy any ballistic missile defenses are still years ahead. This gives us time to come to grips with the arms control implications of potential US systems and of existing and prospective Soviet systems. Dialogues within the Alliance, as well as in bilateral discussions with the Soviet Union, have already begun and will be actively pursued. The potential impact of ballistic missile

defenses on deterrence and stability is both a challenge and a promise for those tasked with crafting the future of arms control on both sides, and it lies at the heart of ACDA's mission.

Arms Control and Technology

The technological breakthroughs of the 1960s and 1970s contributed significantly to arms control by making possible verification by national technical means of some forms of constraint, most prominently limits on silo-based launchers. But as arms control seeks to constrain other more significant force characteristics (for example, warhead totals and yield) and as delivery means become harder to monitor (for example, cruise missiles and mobile ballistic missiles), national technical means of verification have become less effective.

Supplemental monitoring methods are essential, not only for offensive nuclear systems, but also for monitoring troop counts, chemical and biological arsenals, anti-satellite capabilities, and other potential categories for constraint. Thus, developing much better means for verification will be one of the more daunting challenges to arms control ingenuity in the future, one which ACDA is working on.

The changing technology of weaponry has equally important, and in some ways much more challenging implications for arms control. In particular, rapid advances in accuracy through acquisition, tracking and guidance technologies have offered

the promise of more effective, yet less destructive weapons, both offensive and defensive, nuclear and non-nuclear. These smaller, safer, more discriminating weapons may now promise better ways to ensure deterrence, enhance stability and provide mutual security. For example, the United States has taken advantage of these improved capabilities to reduce its nuclear inventory by three-quarters in the numbers and by one-quarter in the megatonnage of the 1960 US inventory.

The prospect of these more discriminating technologies, however, has been met with considerable resistance. Traditional concern that deadly new military capabilities will sooner or later become available to an adversary provides at most only a partial explanation. Supporters of arms control also have often resisted these advances. For there is concern that the development of new, less destructive and more controllable weapons will enhance the risk of war; that without the threat of uncontrolled conflict leaders will be too ready to run risks that could end in war.

To the contrary, more discriminating, new technologies promise to help accomplish arms control objectives. It must not be presumed that the United States and its Allies are incapable of applying such technologies so that war, should it occur, would be less devastating; or of developing defenses that would deter aggressors and promote strategic stability without stimulating an arms race. This conceptual challenge must

be met; technologies capable of enhancing the survivability of strategic forces and reducing their preemptive threat need to be fostered through both arms control and unilateral force modernization programs.

Preventing the Spread of Nuclear Weapons

Most public attention on arms control focuses on efforts by the two superpowers to negotiate limitations on their own nuclear arsenals. Another critical nuclear arms control objective is to prevent nuclear weapons from spreading to additional countries. Policies and activities to achieve this objective take place largely out of the public limelight, but are essential to reducing the dangers to world peace and global stability posed by nuclear weapons.

The greatest threat of use of nuclear weapons stems from the possible further spread of these awesome weapons into unstable conflict-prone regions. These weapons' further spread around the globe would also sow suspicion and create instability, thus making the task of resolving political disputes even more difficult. Such proliferation could also threaten US security interests and pose a risk of drawing the superpowers into a direct confrontation.

Effective non-proliferation policy, however, is not a matter of grand initiatives. Rather, it demands considerable patience and the pursuit of many limited steps; its objective is a defense in depth.

United States alliance commitments and other security relationships can be a decisive factor in reducing the insecurities that can lead a country to seek nuclear weapons. Much also can be done, both by strengthening international nuclear export guidelines and by rigorous domestic controls, to make it technically more difficult for such a country to achieve its goal. Not least, the various institutions, such as the Nuclear Non-Proliferation Treaty, which reflect the norm of non-proliferation must be nurtured and universally accepted.

Of particular note in this area of arms control is that even after the 1983 breakdown of arms control negotiations between the United States and the Soviet Union, our two countries continued to meet to exchange views on non-proliferation. Strong mutual interests have undergirded this pattern of activity: both we and the Soviets recognize that the further spread of nuclear weapons would undermine our security, that of other countries, and threaten world peace.

There still are only five acknowledged nuclear-weapon states, and it has been 10 years since India exploded a nuclear device in the Thar desert. A quarter of a century ago many were predicting a world of 15-20 nuclear weapon states by the 1980s. It did not happen, but only because the United States and many other countries recognized the dangers

of such a world and worked vigorously to prevent it. Clearly, tne potential for proliferation still exists; but with intensive international cooperation it should be possible to meet successfully this arms control challenge.

2. STRATEGIC PROGRAMS

The United States and the Soviet Union held five complete rounds of Strategic Arms Reduction Talks (START) and six complete rounds of Intermediate-range Nuclear Forces (INF) negotiations in Geneva through the end of 1983. Although some progress had been made in both negotiations, no agreements were concluded.

NATO's December 12, 1979, "dual-track" decision on INF set forth NATO's intention to redress the military imbalance caused by the Soviet build-up of SS-20 missiles threatening Europe. NATO preferred to reduce the threat by means of US-Soviet negotiations but it accepted the necessity of deploying US longer-range INF (LRINF) missiles in Europe. In the absence of negotiated constraints the United States began initial deployment of LRINF missiles at the end of 1983, as called for in the NATO decision. The Soviet Union used the beginning of these deployments as the reason to discontinue the INF negotiations and to withhold agreement on a resumption date for START. The Soviet Union remained unwilling to resume the INF and START negotiations throughout 1984. Despite the uncertainty that beset the negotiations and US-Soviet relations in general, the substantial reduction of US and Soviet nuclear arsenals remained one of the Administration's foremost objectives in 1984.

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The Administration continued in 1984 its careful and intensive study of the benefits and problems of space arms control, and specific arms control options. These efforts put the US Government in a position to clearly demonstrate its readiness to enter into serious talks with the Soviet Union on outer space by promptly accepting the Soviet proposal in June for talks in Vienna on outer space. The Soviet Union did not accept "yes" for an answer to their own proposal because of their stated objection to a US proposal to include discussions of offensive weapons in the negotiations, and the Vienna talks were not held.

The efforts of the US Government during 1984 to resume and expand the essential arms control dialogue with the Soviet Government at the highest level are reviewed below. Except for agreeing to upgrade the "Hotline" and willingness to attend the two regular sessions of the Standing Consultative Commission (SCC), the Soviets decided to defer many arms control issues for much of the US presidential election year.

Attempting to encourage a renewal of the arms control talks, the President, in his September address to the United Nations General Assembly, said, "We need to extend the arms control process to build a bigger umbrella under which it can operate, a road map, if you will, showing where during the next twenty years or so these individual efforts can lead." During their meetings later in September, the

President and Foreign Minister Gromyko arrived at an informal agreement to hold follow-up discussions and exchanges between the two countries. There was some indication at the time that the umbrella concept would provide possibilities not only to revive serious US-Soviet arms control dialogue but also to offer an opportunity for a wide-ranging exchange of views.

The United States and the Soviet Union jointly announced on November 22 the decision to enter into new negotiations with the objective of reaching mutually acceptable agreements on the whole range of questions concerning nuclear and outer space arms. In order to reach a common understanding about the subject and objectives of such negotiations, Secretary of State George P. Shultz and Foreign Minister Andrei A. Gromyko met in Geneva on January 7-8, 1985.

Intermediate-Range Nuclear Force Negotiations

The Soviet Union unilaterally discontinued the INF negotiations on November 23, 1983, without setting a date for their resumption. The Soviets justified their walkout primarily on the basis of the beginning of deployments of US LRINF missile systems in Europe.

Following the Soviet walkout, the United States and its NATO Allies continued their close consultations and maintained their clear intention of implementing both tracks of the NATO 1979 "dual track" decision on INF.

Alliance consultations in the Special Consultative Group in Brussels during 1984 permitted a full exchange of information and exploration of subjects dealing with resumption of the negotiations. The Alliance has continued to press for a resumption of dialogue and constructive cooperation with the Soviet Union which would result in equitable and verifiable agreements sharply limiting the deployment of LRINF missiles on both sides. In addition, they have indicated their willingness to halt, modify, or reverse the Alliance deployments in the context of an equitable and effectively verifiable arms control agreement.

In December, 1983, in the absence of a negotiated agreement, NATO began deploying the first of 572 missiles--464 Ground-Launched Cruise Missiles (GLCMs) and 108 Pershing II ballistic missiles--in five countries. These deployments are scheduled to be completed in 1988. Deployment of US LRINF missiles continued at a gradual, steady pace in the Federal Republic of Germany, Italy, and the United Kingdom. Necessary preparations for deployment continued in Belgium.

In the Netherlands, a June 1 letter from the Dutch Cabinet to the Dutch Parliament announced that the government will make its decision on November 1, 1985, regarding deployment of ground-launched cruise missiles in that country. The Dutch Cabinet further proposed a commitment to accept its proportionate share of GLCMs under an arms control agreement

between the United States and the Soviet Union or to deploy its full complement of 48 GLCMs if, by November 1985, Soviet SS-20 levels have increased above the then global Soviet deployment level of 378 missiles. The Dutch Parliament approved the Cabinet's INF decision on June 14, 1984. The decision would permit the Netherlands to fulfill its commitment for GLCM deployments by the deadline date of 1988.

The Soviet position on returning to the INF negotiations remained intransigent through most of 1984. The Soviets have maintained that the NATO LRINF deployments under the 1979 NATO Decision resulted in a "changed situation" which the Alliance must "correct" before the disrupted negotiations could resume. Although there were some slight variations in subsequent Soviet statements on the conditions for resuming the talks, the Soviet Union continued to insist that the "obstacles" created by the NATO deployments must be removed before the disrupted negotiations could resume. The Alliance found this precondition unacceptable since it did not meet the serious security concerns which prompted the 1979 NATO Decision.

Despite the continuing imbalances in both conventional and nuclear forces in Central Europe in favor of the Soviet Union and the Warsaw Pact, the Soviet Union continued to build up its nuclear forces targeted on Western Europe with construction of SS-20 bases in both the Western and Eastern

sectors of the USSR. As of December 1, 1984, the Soviet Union had started more than ten new SS-20 bases since walking out of the INF talks. This was the largest number of SS-20 bases begun in one year since the SS-20 was first deployed in 1977.

In addition, the Soviet Union began other actions which it unjustifiably claimed were "counter-measures" to the NATO INF deployment:

- o The announced deployment of long-range cruise missiles on Soviet aircraft and submarines.
- o Movement of Scaleboard units from bases in the Soviet Union to bases in the German Democratic Republic (GDR) and Czechoslovakia. By December 1, 1984, the Soviet Union had deployed some 50 Scaleboards in these countries, approximately two-thirds of which were in the GDR. However, this forward deployment resulted in no increase in the total Scaleboard force which remained at about 100 Scaleboards targeted against NATO.
- o An increased number of nuclear-armed submarines on patrol in areas near North America.

In contrast to the continuing Soviet nuclear buildup, NATO continued to draw down the number of nuclear warheads in Europe. NATO withdrew 1000 nuclear weapons from Western Europe in connection with the 1979 NATO decision, which also stipulated

that one additional warhead would be withdrawn for each Pershing II and GLCM warhead deployed. Moreover, NATO defense ministers announced at Montebello, Canada, in October 1983 that NATO would withdraw an additional 1400 warheads over the next five years. When these actions are completed, NATO will have withdrawn at least five nuclear weapons for each LRINF missile deployed, and the total NATO stockpile will be at its lowest level in over 20 years.

Strategic Arms Reductions Talks

Notwithstanding the climactic Euromissile drama in late 1983 and the Soviet decision to withhold agreement on a resumption date for Round VI of START, the Administration was determined to continue the dialogue and demonstrate flexibility in its approach to strategic arms reductions. Within days after Round V ended in December 1983, the President communicated to General Secretary Andropov the US readiness to move forward in START by discussing frameworks and possible trade-offs with the possibility of a summit meeting on those issues. President Reagan restated the US desire for resumption and progress in START during a major public address on US-Soviet relations on January 16, 1984. He said in his address, "in our approach to negotiations, reducing the risk of war--and especially nuclear war--is priority number one," and continued, "our negotiators are ready to return to the negotiating

table to negotiate in good faith; whenever the Soviet Union is ready to do likewise, we'll meet them halfway."

With the death of Andropov in February, Vice President Bush delivered a letter from the President to the new General Secretary Chernenko which conveyed the President's determination to move forward in all areas of relations and the US readiness for concrete and productive discussions on reducing nuclear arsenals.

Subsequently, the US Government used numerous occasions and channels to engage the Soviet Union in "quiet diplomacy." These private diplomatic efforts included Secretary of State Shultz's regular meetings with Soviet Ambassador Dobrynin and meetings between US Ambassador Hartman and Soviet officials. US officials have publicly urged the Soviets to return to the negotiating table. For example, Ambassador Rowny, the chief US START negotiator, stated in a March 8 speech in Los Angeles that "the United States is prepared to return to the START negotiations immediately, with no preconditions or reservations. I would therefore challenge the Soviets to respond positively to this proposal and indicate their readiness to return to the START talks in Geneva." The Ambassador repeated that public challenge on April 26 in Dallas. On May 2, ACDA Director Kenneth Adelman stated in public that "we remain prepared to return to the negotiating table without preconditions at the earliest possible time."

The Soviet Union has not remained silent on the issue. General Secretary Chernenko stated publicly on March 30 that "not a single opportunity, not a single chance, should be missed for returning to the path of talks," and, on June 13, he stated in a Pravda inteview, "is there a need for a dialogue and for talks? Both yesterday and today our answer has been the same--yes. But a dialogue which is honest, and talks that are serious. In these we stand ready to engage at any moment." Despite these statements and persistent urging by the United States, the Soviets, as stated by the President, "ignored the will of the world" by refusing to resume negotiations during 1984. (An agreement between the United States and the Soviet Union to reopen negotiations was reached on January 8, 1985.)

Antisatellite Arms Control

US policy on space arms control flows from the President's July 4, 1982, space policy statement: "The United States will continue to study space arms control options. The United States will consider effectively verifiable and equitable arms control measures that would ban or otherwise limit testing and deployment of specific weapon systems, should those measures be compatible with United States national security."

On March 31, 1984, the Administration transmitted classified and unclassified reports to Congress on US policy on Antisatellite (ASAT) Arms Control as mandated by the Fiscal

Year 1984 Defense Authorization Act. In transmitting these reports, the President reaffirmed his July 4, 1982, policy statement. The reports addressed potential benefits and problems of ASAT arms control and national security considerations. The reports noted that space arms control agreements meeting the President's criteria might, if complied with:

- o Limit specialized threats to satellites and constrain future threats to such key satellites as those for early warning. Such limitations on specialized threats to satellites, together with satellite survivability measures, could help preserve and enhance stability.
- o Raise the political threshold for attacks against satellites. Restricting threatening activity and prohibiting attacks on satellites would reinforce existing international law aimed at lowering the likelihood of conflict in space.
- o Meet some international concerns about the use of space for military purposes.

However, the reports noted that, in addition to the potential benefits of space arms control, a balanced study of this topic must take into account a number of problems: the need for effective verification, the potential for breakout, the risks of disclosing sensitive information, the problems of definition of space weapons, the vulnerability of satellite support systems, and Soviet military space activity.

The problem of verification is of particular importance. In general, verification of arms control agreements suffers from the extremely asymmetric degree of openness between US and Soviet societies. The open US society makes the Soviet task of monitoring US activities regarding arms control compliance a relatively easy matter. In contrast, the closed Soviet society and the general Soviet tendency toward secrecy make US verification of compliance much more difficult. This problem is aggravated for ASAT systems because, unlike the Soviets, the satellites which serve US and Allied security are few in number. Cheating on antisatellite limitations, even on a small scale, could pose a disproportionate risk to the United States.

Another area of concern is Soviet space systems which can be used to direct Soviet military forces against US and allied forces. Thus, the United States must balance the desire to limit threats to US satellites against the need to counter Soviet satellites which could cost American lives in situations short of all-out war. The Soviets also have maintained an operational antisatellite capability since 1971.

The United States is developing its own ASAT capability to deter threats to US and Allied space systems and to have the capability to deny, within the limits imposed by international law, any adversary the use of space-based systems which provide support to hostile military forces.

Despite efforts by this and the previous administration, no way has yet been found to design a comprehensive effectively verifiable ASAT ban on all means of countering satellites. Nevertheless, the United States is continuing to study less sweeping options which would limit or ban testing or deployment of specific types of weapons systems which are most effective against satellites. Limits on such systems must be effectively verifiable and must allow the United States to protect its forces and its allied forces against such threatening Soviet satellites as targeting satellites. Other options under examination would regulate certain threatening activities related to space. Intensive studies of various space arms control options provided the basis for the prompt and positive US response in June to the Soviet proposal for talks in Vienna.

Exchanges Regarding "Vienna Talks"

The Soviet Government proposal on June 29, 1984, to the United States for talks to prevent the "militarization of outer space," included a ban on the use of force in space, a ban on antisatellite and antimissile space-based systems, and a ban on ground-, air-, or sea-launched systems intended to hit targets in space. They proposed that the talks take place in September in Vienna and said that "the Soviet Union also offers on a reciprocal basis a moratorium on the tests and deployment" of ASAT weapons.

The United States responded favorably, noting that "militarization of space" began when the first ballistic missiles were tested, and informed the Soviets that we were prepared to meet with the Soviet Union in September, at any location agreeable to the Soviet Union and the government of the country where the meetings were held, for the following purposes: (1) to discuss and define mutually agreeable arrangements under which negotiations on the reduction of strategic and intermediate range nuclear weapons can be resumed, and (2) to discuss and seek agreement on feasible negotiating approaches which would lead to verifiable and effective limitations on antisatellite weapons. The United States stated that it would also be prepared to discuss any other arms control concerns of interest to both sides, but not as a precondition.

The Soviets characterized the US response as being irrelevant to the talks that the Soviets had proposed and elevated their moratorium "offer" to a precondition. In late July, to facilitate agreement on holding talks, the United States presented a proposal for a possible joint Soviet/American announcement on the content and objective of the Vienna talks. It stated explicitly that the aim of the talks should be to work out and conclude agreements concerning the militarization of outer space, including antisatellite systems and other aspects of this issue. In response to the

Soviet proposal of a mutual moratorium on antisatellite tests from the outset of the talks, the United States expressed a readiness to have our negotiators consider what mutual restraints would be appropriate during the course of negotiations.

The United States also viewed the prospective talks on outer space as an excellent opportunity to discuss related arms control issues, such as the relationship between defensive and offensive forces. Accordingly, the United States stated that the problem of weapons in space should not be considered in isolation from the overall strategic relationship. The Soviets, however, declined to meet.

President Reagan continued nonetheless to seek opportunities to renew the dialogue on arms control. He indicated on a number of occasions that, while the United States was not prepared to make concessions to get the Soviets back to talks on nuclear weapons, it was fully prepared to meet them halfway when they did. US efforts during the latter half of 1984 shifted from the specific resumption of the suspended nuclear arms negotiations to a fundamental effort to address the larger questions of US-Soviet relations, the overall strategic relationship, and the overall role for arms control in the two countries' dialogue. In his remarks to the 39th Session of the United Nations General Assembly on September 24, 1984, President Reagan pledged to redouble "efforts to meet

the legitimate expectations of all nations that the Soviet Union and the United States will substantially reduce their own nuclear arsenals." He repeated US interest in the Vienna talks and US willingness to consider measures of restraint while negotiations proceed. He stated that the US approach to renewed talks would take into account concerns which the Soviet Union has voiced and that it would attempt to provide a basis for a historic breakthrough in arms control. The President expressed the hope that talks could begin by the end of the year or shortly thereafter.

The President used the opportunity of Mr. Gromyko's visit to the UN General Assembly in September to talk directly with a ranking member of the Soviet leadership, reaffirm US interest in resuming negotiations on substantial and effectively verifiable reductions in nuclear arsenals, and urge the Soviets once again to return to the START and INF tables. Secretary Shultz also met with Mr. Gromyko to review a full range of issues including arms control.

In their discussions with Gromyko, the President and Secretary of State Shultz emphasized that the United States is prepared to be flexible regarding ways to begin negotiations, and urged the Soviets to consider seriously the suggestion of a new framework which could provide an umbrella over efforts in individual areas. A positive result of the Gromyko meetings was agreement on a process of follow-up discussions and

exchanges between the two countries. A common understanding about reinstating negotiations on nuclear offense, defense and space arms was an important result of the negotiations between Secretary of State George P. Shultz and Foreign Minister Andrei A. Gromyko in Geneva January 7-8, 1985.

Standing Consultative Commission

The SCC was established in 1972 pursuant to the Anti-Ballistic Missile (ABM) Treaty and the Interim Agreement to promote the implementation of those agreements and the Accident Measures Agreement of 1971. The SCC provides a permanent arrangement in which, among other functions, the Parties are able to conduct continuing bilateral exchanges on arms control in the field of strategic weapons.

Since the SALT II Treaty has not been ratified and has not entered into force the obligations of the Parties with respect to the functions of the SCC regarding that Treaty also have not formally entered into force. Nevertheless, under their respective interim restraint policies, the parties have used the SCC to deal with relevant SALT II matters.

During 1984, the Commission met twice in Geneva. The first regular session of 1984 (SCC-XXVI) was held from March 21 to May 18; the second (SCC-XXVII) was held from October 2 to December 12.

The Agency provided the US component of the Commission a Washington base of operations, and ACDA played a leading

role in interagency preparation for the sessions of the SCC by chairing both the SCC working group and the SCC backstopping committee. Also, members of the ACDA technical and legal staffs served as members of the advisory staff of the U.S. component of the Commission during its sessions in Geneva.

3. MULTILATERAL NEGOTIATIONS

The United States was involved in a wide array of multilateral arms control negotiations during 1984. Among these were the Conference on Disarmament (Geneva), the Mutual and Balanced Force Reductions talks (Vienna), the Conference on Confidence and Security Building Measures and Disarmament in Europe (Stockholm), the United Nations Disarmament Commission and the 39th United Nations General Assembly (New York), and the Environmental Modification Treaty Review Conference (Geneva).

Reflecting the importance the Administration attached to these negotiations, officials at the highest levels of the government personally pursued these multilateral discussions in 1984. President Reagan addressed the United Nations on September 24 in a speech which noted "a new beginning" and a "fresh approach" towards arms control. On January 17, Secretary of State Shultz addressed the 35-nation conference at Stockholm. On April 18, Vice President Bush presented to the 40-nation Conference on Disarmament a US draft treaty for a total ban on chemical weapons. ACDA Director Kenneth Adelman addressed the United Nations First Committee on October 25, and Deputy Director David Emery led the US Delegation to that Committee during the 39th United Nations General Assembly. ACDA Assistant Director for Multilateral

Affairs Thomas H. Etzold led the US Delegation to the first Review Conference of the Environmental Modification Convention, September 10-20. Among the principal achievements of the year in multilateral arms control was the presentation of the draft chemical weapons treaty. Another significant achievement was the convening of the 35-nation Conference on Confidence and Security Building Measures and Disarmament in Europe, which opened on January 17. In this conference, the United States and its NATO allies presented a package of confidence- and security-building measures calling for information exchanges on ground and air forces, advance notification of military activities and mandatory invitations to observers. Another important multilateral arms control achievement was the successful conclusion of the Environmental Modification Convention Review Conference.

The Conference on Disarmament

The 40-nation Conference on Disarmament (CD), in operation since 1979, is the international forum for negotiation of multilateral arms control agreements affecting the entire community of nations.* In addition to the United States, the Conference includes all the other nuclear-weapon states, a number of US and Soviet allies, and 21 neutral and nonaligned

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*Prior to 1984, this body was called the Committee on Disarmament. The change in name has no substantive implication.

states. The CD convened in three-month meetings in the spring and in the summer for the 1984 session.

Chemical Weapons

The 1984 CD session was marked by intensive work in the ad hoc committee on chemical weapons.

On April 18, 1984 Vice President Bush presented to the CD a US draft treaty for a comprehensive, worldwide ban on chemical weapons. The treaty would prohibit development, production, possession, transfer and use of chemical weapons. Verification measures include a system of regular international on-site inspection for checking declarations, monitoring stocks and facilities before their destruction, confirming destruction, and monitoring permitted activities such as commercial production of specified chemicals which pose a particular risk. A special mechanism, involving challenge on-site inspection anytime, anywhere, for military and government-owned or controlled facilities would be established to deal with suspected violations.

Radiological Weapons

In addition, the Radiological Weapons Ad Hoc Committee continued its work on a ban of radiological weapons. It also addressed the issue of whether additional legal contraints against military attacks on nuclear facilities should be developed. The committee directed most of its efforts to

an examination of a draft agreement introduced by Sweden which would ban both radiological weapons and attacks on nuclear facilities in the same legal instrument. The US delegation was an active participant in these discussions.

Nuclear Testing

Two other committees of the CD also met during 1983--one to continue negotiations on effective arrangements which would assure the non-nuclear-weapon states that they would not be threatened by nuclear weapons, and another to develop a comprehensive program of disarmament. In addition, the CD's Ad Hoc Group of Scientific Experts, the purpose of which is to consider international cooperative measures to detect and identify seismic events, completed its Third Report and made preparations for a technical test of seismic data exchange procedures which might be used to assist in monitoring a future comprehensive nuclear test ban treaty.

The CD also considered other important issues, including matters related to the prevention of an arms race in outer space. On this issue, the United States lent its support to a Western proposal for the establishment of a committee of the CD which might discuss the various aspects of the outer space arms control issue.

United Nations General Assembly

The United Nations General Assembly held its 39th session from September 12 to December 18, 1984. The First Committee of the General Assembly, which is responsible for arms control and security matters, began its meetings on October 16.

The US delegation to the First Committee tabled a resolution on the illegal use of chemical weapons, which was passed by a margin of 118 to 16, with 14 abstentions an almost unparalleled indication of support of the United States in its opposition to the use of chemical weapons. The delegation also gave its support to, among other matters, initiatives for observing the Geneva Protocol, for resuming nuclear weapons negotiations, and for planning for the third review conference of the Non-Proliferation Treaty.

The United Nations Disarmament Commission

The United Nations Disarmament Commission, the body designated to deliberate on arms control and security issues, is composed of all the UN member states and meets annually in New York. The 1984 session of the Commission under the chairmanship of Ambassador James Gbeho of Ghana, met from May 7 to June 1. The Commission held nine plenary meetings, but devoted most of its efforts to the meetings of its four working groups and one contact group. The working groups on the Reduction of Military Budgets and the question of South Africa's nuclear capability covered much of the same material

addressed in previous sessions. The group concerned with confidence-building measures developed guidelines for appropriate types of such measures. A new group was created to discuss tne relationship between disarmament and development. The contact group focused on the issue of nuclear disarmament.

Environmental Modification Convention Review Conference

The first review conference of the 1978 Environmental Modification Convention was conducted in September 1984, with its 54 parties expressing their overall satisfaction with the operation of the treaty, and calling on other countries to become members.

The principal findings of the conference were stated in its final declaration. First, the parties reaffirmed their commitment in preventing the hostile use of environmental modification techniques. Second, the environmental modification convention has thus far functioned successfully in preventing the hostile use of environmental modification techniques. Third, if more countries became parties, the convention would become still more effective in attaining its goal of a universal prohibition of such use.

Mutual and Balanced Force Reductions

Twelve NATO allies and seven Warsaw Treaty Organization states began negotiations in October 1973 in Vienna, Austria, on the Mutual Reduction of Forces and Armaments and Associated

Measures in Central Europe, called MBFR by the West. The agreed objective of the negotiations has been to contribute to European stability by reducing the dangerous concentration of NATO and Warsaw Pact conventional forces in Central Europe. The area of reductions encompasses the territory of Belgium, Luxembourg, the Netherlands, the Federal Republic of Germany, Czechoslovakia, the German Democratic Republic, and Poland. The talks have proceeded routinely, with three rounds a year since 1973 until the last round of 1983. But at the last meeting of that round, the East refused to agree to an opening date for the following round, as had been the custom. Talks resumed in March 1984, almost two months after the normal starting date, and the negotiating pattern now appears to be back on track. The West presented a new proposal on April 19, 1984, which modified the 1982 Western Draft Treaty and took into account Eastern concerns on several issues. The East has been unwilling seriously to discuss this new proposal during the three subsequent negotiating rounds of 1984.

The Eastern Position

The Eastern position remains substantially unchanged since 1983. The Warsaw Pact countries have so far been unwilling to make any movement or counterproposals to the 1984 Western initiative. The Eastern draft treaty calls for a three-step approach for reductions to parity. The first step would be immediate US and Soviet troop and armament reductions by

mutual example, that is, outside the framework of a formal agreement. The second step would follow these reductions by a political commitment by each side not to increase their forces or armaments in the area of reductions. The third step would be a formal agreement on reductions to the agreed common collective ceiling of 900,000 air and ground force personnel in three years. The Eastern draft requires no exchange of data before treaty signature since, so its supporters claim, there is no need to know the initial size of each side's forces, only the need to know that the final force ceilings have been reached. The Warsaw Pact countries have also proposed limited cooperative measures to provide partial verification of the actual reductions.

The Western Position

The Western MBFR objective remains reaching military manpower parity at significantly lower levels between East and West in Central Europe. To accomplish this goal requires asymmetrical reductions to eliminate the present manpower disparity. The Western present position rests upon the 1982 draft treaty which called for common collective ceilings of 900,000 air and ground force personnel, including no more than 700,000 ground force personnel. The West has made accommodations to Eastern concerns over data, the central issue deadlocking the talks, by offering to set aside the long-held desire for complete data exchange and agreement before

the signing of the treaty. The West now asks initially for data exchange only on the ground combat and combat support forces of the two sides. Moreover, the approach does not require formal agreement on precise figures, but only that the estimates of the figures fall within an acceptable range. The West has also agreed to a collective commitment not to increase personnel levels following initial US and Soviet troop reductions and during a shortened reduction period, from seven to five years, to help move the positions closer together. The West has also agreed to an obligation, which is similar to one in the Eastern proposal and which concerns the form which US and Soviet reductions will take, namely, that the reductions be accomplished partly by a reduction of individuals and partly by a reduction of units.

The Western proposal represents an effective and orderly means of proceeding with the necessary large-scale reductions. It also ensures that, once reductions begin, they will continue to the agreed levels, thanks to built-in safeguards in the form of associated measures* to verify compliance with the

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* These measures are: prenotification of, and observers at, out-of-garrison activities; prenotification of ground force movements into the area of reductions; an annual quota of on-site inspections; establishment of permanent exit/entry points, with observers, through which most forces entering or leaving the area of reductions would pass; a detailed exchange of information on forces remaining in the area of reductions; and non-interference with national technical means of verification. In addition, the West proposes the establishment of a joint commission to assist in implementing the agreement and to consider questions of compliance.

terms of the treaty and to serve as confidence building measures. The West has modified its associated measures to require enhancement of the verification provisions since we have relaxed the requirement for data exchange. The goal is to ensure that, throughout the life of the agreement, all reductions are carried out and that the manpower limitations are complied with.

This flexible Western proposal stresses effective verification, not merely the "mutual good faith" underlying the Eastern approach. Verification procedures must be in operation from the outset of an agreement and the verification system as a whole must encompass measures providing for an exchange of information about each side's forces and military activities at an adequate level of detail as well as measures allowing corroboration of that information through direct observation.

Major Issues and Prospects

Even though there have been eleven years of talks without an agreement, progress has been made in reaching a convergence of views on some issues. Both sides now agree to the final ground and air force troop level total, the need for cooperative verification measures, and the exchange of information on military forces and activities.

Further progress depends on resolving the remaining problems, especially the problem about data. For instance,

the West believes that the data presented by the East in 1980 understates the forces in theater by more than 200,000 personnel. In view of the difficulties in reaching agreement on data and in obtaining accurate figures, the West must pursue solutions to these problems in order to achieve a reasonable accounting of forces and effective verification measures to monitor later developments.

The Conference on Security and Cooperation in Europe

ACDA's primary involvement in the Conference on Security and Cooperation in Europe (CSCE) occurs through the Conference on Confidence and Security Building Measures and Disarmament in Europe (CDE) which was established by the 1983 Madrid Concluding Document. (See Note)

From the Western perspective, the CDE is a conference about reducing the risk of surprise attack in Europe. Western goals include (1) reducing that risk by providing greater predictability about military activities; (2) reducing the risk of conflict through accident or miscalculation; (3) enhancing emergency communications; and (4) laying the basis for greater military openness which can result in enhanced stability in

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Note: The Madrid Concluding Document adds important new provisions to the Helsinki Final Act of 1975. These provisions deal with the rights of workers to organize, human and religious rights, human contacts and family reunification, access to diplomatic and consular missions, information, rights of journalists, measures against terrorism, and security concerns.

Europe and among the 35 participating states. To this end, the confidence and security building measures (CSBMs) to be negotiated in the CDE must be militarily significant, politically binding, verifiable, and applicable to the whole of Europe, which includes Soviet territory as far east as the Urals. Also, the West believes that the CDE must remain an integral part of the CSCE process to maintain the appropriate balance between human rights and security concerns.

The CDE opened January 17, 1984, in Stockholm. The opening was particularly important since it represented a key multilateral arms control forum beginning after the earlier breakdown of the INF, START, and MBFR negotiations. Secretary Shultz, Foreign Minister Gromyko, and most other participants' foreign ministers attended the opening of the Conference. The United States, together with the NATO allies, presented a proposed package of CSBMs on the first day of regular business. The Western package calls for information exchange on ground and air forces in the CDE zone, forecasts and notifications of military activities in the zone, including amphibious operations, mobilizations and alert activities and regular out-of-garrison activities; mandatory invitations to observers at these activities; verification provisions including inspections; and provisions for improved communication between participants.

The Soviet Union formally presented its proposal at Stockholm at the beginning of the second round in May. This proposal calls for a treaty on non-use-of-force and declaration on no-first-use of nuclear weapons, reduction of military budgets, a chemical-weapons-free zone in Europe, nuclear-free zones in Europe, and some limited improvement in the CSBMs contained in the Helsinki Final Act.

These Soviet proposals have serious flaws. A no-first-use of nuclear weapons declaration would be essentially meaningless and would undercut NATO's doctrine of flexible response. The Soviet proposal for reducing military budgets is unworkable because of concealments of expenditures and differences in budgeting and accounting policies and practices. The United States and its allies support detailed reporting of national military expenditures in a UN-agreed-upon format as an essential first step toward any negotiation on reduction. Nuclear- and chemical-free zones would be impossible to verify on a regional basis. They would not enhance security because reintroduction of these weapons from surrounding areas would be both easy and quick to accomplish. The similarity of the Soviet proposals for extending Helsinki-type CSBMs to those the United States and allied nations have proposed may be the basis for productive negotiations.

The neutral and non-aligned (NNA) countries tabled an outline of proposals late in the first round of the Stockholm

Conference. This document incorporates, in a general way, the elements of the Western proposals.

In an effort to advance the negotiations, President Reagan, in a speech in Dublin in June, offered to enter into discussions on the Soviet non-use-of-force proposal if the Soviets would negotiate on measures to give concrete meaning to that principle. Western countries also sought to begin the process of more detailed and informal negotiations during the second and third rounds. The West advanced a proposal for a single transitional working body and later was prepared to accept an NNA proposal for two working groups in which all the proposals of all participants could be addressed. The Soviets rejected both approaches.

In the fourth and final round of 1984, however, the participants adopted a working structure which will encourage detailed examination of the possible areas of agreement. The West hopes that this agreement on procedures will lead to tangible progress in the Stockholm Conference and enhanced security in Europe.

4. NUCLEAR NON-PROLIFERATION

A fundamental objective of US national security and foreign policy is preventing the further spread of nuclear weapons. In his July 1981 policy statement, President Reagan stated that nuclear proliferation is one of the most critical challenges in international affairs. He said that the further proliferation of nuclear weapons would pose a severe threat to international peace, regional and global security, and the security interests of the United States, its allies, and all other countries. In March 1983, President Reagan emphasized the important responsibility of nuclear exporting countries to prevent the spread of nuclear weapons; to advance this goal he urged these countries to adopt comprehensive safeguards as a condition for nuclear supply commitments that are made in the future. In his September 1984 address before the United Nations General Assembly, the President spoke of the need for the United States to work in close cooperation with the Soviet Union to strengthen international institutions and practices aimed at halting the spread of nuclear weapons.

For the past 40 years, ever since the nuclear age began, every US Administration has sought to prevent the further spread of nuclear weapons. A number of strategies and approaches are needed in pursuit of this goal since there is no one simple technical or easy political solution. The

motivations to acquire nuclear weapons must be reduced through the strengthening of key US alliances, and efforts must be made to enhance regional and global stability. The US also supports and encourages adherence to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the Treaty for the Prohibition of Nuclear Weapons in Latin America (the Treaty of Tlatelolco). In addition, the United States controls the transfer and export of sensitive nuclear equipment, material, and technology, both by way of US export controls and through cooperation with other nuclear supplier states. The United States has also supported strengthening safeguards on civil nuclear programs under the International Atomic Energy Agency (IAEA).

There were a number of significant developments in nonproliferation during the past year. Preparations for the 1985 NPT Review Conference were well underway with two meetings of the Preparatory Committee. A new agreement for peaceful nuclear cooperation was concluded with Finland, while similar agreements were signed with Norway and Sweden. China became a member of the IAEA on January 1, 1984. In July, at the intiative of the United States, an important meeting of eleven major nuclear suppliers -- all friends and allies of the United States -- took place in Luxembourg to discuss issues of common interest such as IAEA safeguards and nuclear export policies, including comprehensive safeguards.

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Talks between the United States and several nations, such as Argentina, Brazil, and South Africa, which have not accepted the full range of nonproliferation controls, continued in 1984. Additionally, South Africa has been discussing safeguards agreeements with the IAEA for its semi-commercial enrichment plant. These talks are largely the result of US efforts. Discussions about nuclear cooperation also continued with Japan and the countries of EURATOM. Congress continued to be involved in the area of nonproliferation, with further consideration of new restrictive legislation.

ACDA plays a major role in the nonproliferation efforts of the US Government. The ACDA staff provides critical expertise on both policy and technical issues. Issues in which it is involved range from US civil nuclear cooperation with its Allies, to international cooperation on nuclear export control and sensitive country matters, to increased adherence to and improvements in IAEA safeguards system, and to issues related to the NPT.

The Treaty on Non-Proliferation of Nuclear Weapons

The Treaty on the Non-Proliferation of Nuclear Weapons is the foundation of international efforts to curb the spread of nuclear weapons. With 127 parties, including three nuclear weapon states (US, UK, USSR), the NPT has attracted the largest number of parties ever to adhere to an arms control agreement.

The provisions of the NPT provide a balance in obligations between the nuclear weapon states and the non-nuclear weapon states. According to the provisions of the Treaty, non-nuclear weapon states agree to forego any development or other acquisition of nuclear explosives and to accept international safeguards as applied by the IAEA on all of their peaceful nuclear activities. In turn, nuclear weapon states party to the Treaty agree not to assist any non-nuclear weapon state in the development or other acquisition of nuclear explosives. The parties to the Treaty agree to participate in the "fullest possible exchange" in the field of peaceful nuclear cooperation. The parties also agree to pursue "negotiations in good faith" to reduce nuclear weapons and pursue the goal of disarmament.

After several years of negotiation, the NPT was opened to the international community for signature on July 1, 1968. On July 1, 1983, the White House issued a Presidential statement marking the fifteenth anniversary of this historic event. In his statement, President Reagan reiterated strong US support for the NPT and urged all states which have not yet adhered to the Treaty to do so. During the past year, the United States has waged an active diplomatic effort to encourage universal adherence to the Treaty. Since 1981, twelve additional nations have adhered to the Treaty. The US has continued to underscore the need for states to work together to deal

effectively with the problem of proliferation and has again called on nuclear supplier states to require comprehensive safeguards as a condition of nuclear supply.

Under the provisions of the NPT, a conference to review the implementation of the Treaty can be held every five years. The first such Review Conference was held in 1975, the second was held in 1980, and the third will be held in 1985. In preparation for the 1985 Review Conference, the United Nations General Assembly, in the fall of 1983, passed by overwhelming majority a resolution providing for UN Secretariat support for the Conference.

International Atomic Energy Agency

The International Atomic Energy Agency was established in 1957 with the principal objectives of encouraging and assisting in the "development and practical application of atomic energy for peaceful purposes through the world." Nuclear cooperation through the IAEA is strictly limited to peaceful purposes and is carried out under a system of safeguards which are designed to prevent the possible diversion of nuclear materials from peaceful programs to any military or weapons use.

Despite difficulties arising from the 1982 IAEA General Conference, during which there was concern over introduction of extraneous political issues, the United States fully supports IAEA objectives and programs. The IAEA plays a major role

in promoting the goals of nuclear nonproliferation policy, and its safeguards and technical assistance programs are a major factor in helping to guarantee the development of peaceful nuclear programs.

Strong US support for the IAEA is vital for its continued success, particularly in the areas of safeguards and technical assistance which serve important US security and nonproliferation goals by helping nations to develop and maintain peaceful nuclear programs. US participation is important not only in helping to prevent the IAEA from becoming a forum for political debate which divides and undermines its basic functions, but also in providing financial support to strengthen and expand its basic programs. ACDA will continue to work actively on strengthening existing IAEA programs, expanding its resources so that it can effectively carry out its functions, and encouraging international support for this crucial organization.

IAEA Safeguards

The assurance provided through IAEA safeguards that nuclear material or facilities are not being misused is essential to continued peaceful nuclear development. On the basis of over 160 safeguards agreements with almost 100 countries, the IAEA seeks to provide this assurance through a comprehensive system of accountancy procedures, on-site inspections, and technical measures.

The scope of the IAEA's responsibility is brought to a focus with the recognition that there are under safeguards in non-nuclear weapon states about 7,000 kg* of separated plutonium, 10,000 kg of high-enriched uranium, over 90,000 kg of plutonium contained in irradiated fuel, and almost 50,000 tons of uranium located in over 500 nuclear facilities. The statistics of IAEA's activities are equally impressive: about 2000 inspections per year, over 200 automatic photographic and television surveillance systems, 7000 seals verified, over 1000 analytical samples, and 800,000 data entries in the safeguards computer.

Additional nuclear facilities are continually coming under safeguards, and many of these are larger, more complex, and of a more sensitive nature than the older facilities. In 1984, for example, uranium enrichment facilities in four countries came under safeguards for the first time. The amounts of nuclear material under safeguards in these facilities also increase regularly.

For these reasons, and to improve the implementation of safeguards, the United States has continued its vigorous program of diplomatic and technical support to ensure that the IAEA has adequate up-to-date expertise and the appropriate political climate. ACDA plays an integral part in these efforts and

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* The quantity of significance for a nuclear explosive is about 8 kg of plutonium.

devotes a substantial part of its staff and resources to strengthening safeguards.

In close cooperation, the Department of State, ACDA, the Department of Energy, and the Nuclear Regulatory Commission work on continued improvements in the application of safeguards, on increased financial and human resources to meet additional safeguards obligations, and on ways to carry out the vital tasks of the IAEA more efficiently. This work is carried out at home and abroad in many different ways. For example, several interagency groups serve to identify specific problems and to develop plans of action to address those problems; safeguards experts work directly with the IAEA on defining specific safeguards goals, developing safeguards approaches and inspection activities, evaluating safeguards effectiveness, and setting up quality control programs to ensure continued effectiveness; and, under ACDA leadership, teams of safeguards experts meet regularly with those of key allies to address problems which may be most efficiently resolved bilaterally and to exchange views on current IAEA safeguards issues.

The ultimate measure of success of efforts aimed at strengthening IAEA safeguards is the improvement actually achieved by the IAEA in safeguards implementation. Such improvements, however, are usually the result of a combination of efforts and the effect of a particular US activity is very difficult, if not impossible, to determine. Nonetheless, it is

useful to examine the record, which shows clearly that these efforts collectively are having an effect.

The record of improvement in the effectiveness of safeguards implementation, as measured by attainment of IAEA inspection goals, shows that the percentage of the inspected facilities at which the goals were attained has almost doubled in recent years, during a time when the number of facilities with significant quantities of nuclear material increased. This improvement results from increases in resources as well as in the effectiveness and efficiency with which these resources have been used. It is noteworthy that, at a time of fiscal restraints and calls for zero budget growth at UN agencies, the 1984 safeguards budget of $33.8 million represented a real growth of 5.4 percent over 1983 and that the IAEA's Board of Governors approved a similar growth for safeguards implementation in 1985. In terms of inspection effort, the IAEA was able to attain an increase of about 60 percent over the past four years.

At the same time, the IAEA each year uses more systematic and rigorous procedures for evaluating safeguards performance. As these improved evaluation procedures become established and as further improvements in safeguards implementation are made, ACDA expects that there will be further increases in the percentage of goal attainment.

In 1984, as in previous years, the IAEA reported that, in carrying out its safeguards program, it did not detect any

anomaly which would indicate the diversion of a significant amount of safeguarded material or the misuse of safeguarded facilities and equipment. The dedication of the United States and other supporters of nonproliferation will be required to ensure that this statement can continue to be made in the future. The political nonproliferation regime is effective in making diversion unlikely, and the technical credibility of IAEA safeguards is such that, should a diversion occur, it would be detected and reported. ACDA's safeguards efforts during 1984 will continue to affect both of these aspects for years to come.

Program for Technical Assistance to IAEA Safeguards

The primary mechanism for responding to specific safeguards needs and technical problems identified by the IAEA is the US Program for Technical Assistance to IAEA Safeguards (POTAS). The interagency Technical Support Coordinating Committee, chaired by the Department of State, is responsible for overall program direction and coordination of POTAS, as implemented by the International Safeguards Project Office at Brookhaven National Laboratory. ACDA participates actively in this Committee. To ensure that this assistance most usefully meets the growing needs of IAEA safeguards and supports the US objectives for effective and efficient international safeguards, POTAS tasks are closely coordinated with the IAEA and with other countries having similar support programs.

During 1984, development and improvement of safeguards equipment and procedures as well as provision of "cost-free experts" to the IAEA and training of IAEA staff continued. In particular, equipment has been provided to IAEA inspectors for on-site measurement of nuclear material and for containment and surveillance. Also, system studies have analyzed IAEA safeguards and developed procedures for IAEA use in implementing and evaluating its safeguards. The "cost-free experts" and the training have been used to augment the equipment and procedures.

RERTR

In 1978, the program for Reduced Enrichment in Research and Test Reactors (RERTR) was initiated to minimize international commerce for high-enriched uranium, a material which can be used in nuclear explosives. Administered by the Department of Energy through Argonne National Laboratory, the program is aiming to develop, test, and qualify new research reactor fuels which can be substituted for high-enriched uranium fuels currently in use. In 1984, the program has made solid progress toward the completion of the development and testing of new high-density silicide fuel elements which can be used to convert most of the world's research reactors now requiring high-enriched uranium. This work has paved the way for a full-core demonstration of this fuel in the Oak Ridge research reactor scheduled to begin by mid-1985. If

the technical achievements of the program continue as anticipated, by 1990 the amount of high-enriched uranium supplied to reseach reactors, presently about 1,000 kilograms annually, should begin to decline dramatically.

Remote Monitoring

The number of nuclear facilities are continuing to increase worldwide. National and international organizations with the responsibility of monitoring nuclear materials are already beginning to feel the strain on available resources. To enhance the effectiveness and efficiency of the resources required to safeguard and protect nuclear materials, new technologies are needed. Since 1977, ACDA has been engaged in exploring new concepts for remotely monitoring inventories and shipments of nuclear materials. The REmote COntinual VERification (RECOVER) system was developed for applications for international safeguards, and the TRANsport by SEA VERification (TRANSEAVER) system is under development to monitor the security status and location of nuclear materials shipped on the high seas. These efforts have sparked international interest in the applications of remote monitoring technology to safeguards and to other areas of arms control, including the verification of agreements on the reduction of chemical weapons. In 1984, a joint research agreement between ACDA and the Japan Atomic Energy Research Institute was initiated to undertake the completion of a field test of TRANSEAVER during 1985.

Cooperation Among Supplier Countries

Efforts among the major suppliers to ensure that their nuclear export activities do not increase the risk of nuclear proliferation continued to occupy a position of major importance in US policy. Activities in this area range from consultations on specific exports of concern to discussions over broader policies. These issues are included on the agenda of virtually all US bilateral consultations with major supplier countries, and have also been the subject of multilateral meetings.

At the initiative of the United States, a meeting of eleven major supplier countries took place in Luxembourg in July to discuss nonproliferation issues of common interest. The participants in this meeting were friends and allies of the United States and included Australia, Belgium, Canada, France, Italy, Japan, Luxembourg, the Netherlands, Sweden, Switzerland, the United Kingdom, and the Federal Republic of Germany. Among the items discussed were IAEA safeguards and national nuclear export policies. The participants focused on an assessment of the current status of the nuclear nonproliferation regime and identified a number of matters requiring further consideration. Among the issues discussed was the US initiative to urge all major nuclear suppliers to adopt comprehensive IAEA safeguards as a condition of any significant new nuclear supply commitment to a non-nuclear weapon state. Comprehensive safeguards would require such a non-nuclear weapon state to

have all its peaceful nuclear activities under IAEA safeguards. There was a very useful exchange of views on this and other issues at the meeting, and the United States expects that this dialogue will continue. Those suppliers noted above wished to conduct an initial round of discussions among themselves before moving toward what may be a broader, more long-term process in which the Soviet Union and other countries might be involved.

Another major issue area involving nuclear suppliers is the effort to upgrade the so-called Trigger List of nuclear material and equipment which may be exported only if the recipient non-nuclear weapon state agrees to accept IAEA safeguards on the exported item. This Trigger List was initially developed in the early 1970s to implement Article III.2 of the NPT, which requires IAEA safeguards on such exports. Over the years, advances in technology and in the sophisticated purchasing strategies of certain countries had revealed some areas of the Trigger List that were deficient. For example, Pakistan was able to construct a centrifuge enrichment plant without placing that plant under IAEA safeguards, even though some of the technology and equipment used in that plant were purchased from foreign suppliers.

Over the past few years, bilateral and multilateral discussions have been held in order to review what additional items related to centrifuge enrichment should be controlled

under the Trigger List. In January 1984, this effort was finalized when members of the IAEA Zangger Committee (formed in the early 1970s to establish policies for implementing Article III.2 of the NPT) sent letters to the IAEA Director General which indicated the Committee members' intention to interpret the existing entry on the Trigger List relating to enrichment to include a number of additional items related to centrifuge technology. This development was a major achievement.

Guarding against the construction of unsafeguarded "sensitive" nuclear facilities is a principal goal of the major supplier countries and has been a key element of US nonproliferation policy for several years. Efforts in this area are continuing. Consultations have been held among key technology holders in the area of reprocessing plutonium, a weapons-usable material, from spent reactor fuel. During 1984, considerable progress in identifying some items which could be added as clarifications of the existing Trigger List was made, and the United States is hopeful that this activity can be completed in 1985. Improving the Trigger List must be a continuing activity, and further study is being given to what technologies will be addressed next.

The third general area of considerable attention during 1984 was newly emerging suppliers. The concern of the mid-1970s that major nuclear suppliers would sacrifice nonproliferation

concerns in favor of cut-throat commercial competition for nuclear sales did not materialize in a significant way due to the consensus on common supply guidelines which had been reached at that time (published by the IAEA in 1978). This accomplishment can be undermined if new suppliers come along and refuse to abide by these general norms. To address this potential problem, the United States engaged in discussions during the past couple years with a number of potential new supplier countries, including Argentina, Brazil, South Africa, South Korea, Spain, and China. The United States did not assume that these countries would behave irresponsibly, but it believed that a dialogue on nuclear supply policies would be appropriate in view of their potential for nuclear export activity. These consultations accomplished their principal objective, and ACDA is encouraged by indications that these countries are fully aware of ensuring that their nuclear exports do not contribute to nuclear proliferation.

US Nuclear Export Controls

Amended procedures established pursuant to the Nuclear Non-Proliferation Act of 1978 were published in the Federal Register on May 16, 1984. These procedures meet the tightened regulations requiring specific US approval for the export and re-export of US-origin reactor technology to non-nuclear weapons states which are not party to the NPT or to the Treaty of Tlateloco (or which have not officially placed all their

activities under IAEA safeguards) and to certain other states in a region of tension.

The interagency group known as the Subgroup on Nuclear Export Coordination, in accordance with these procedures, considers the export license applications for nuclear related commmodities. This subgroup provides prompt advice and recommendation to the Department of Commerce on these applications. The potential export of nuclear-related technology from the United States is addressed in 10-CFR Part 810.

Significant Country Developments in 1984

Argentina

The United States welcomed the public announcement by the Alfonsin Government that the Argentine nuclear program would be put under civilian control, as well as the commitment that it would be used for peaceful purposes only. The United States viewed the Argentine statement that it was undertaking a review of its entire nuclear program as a positive development as well. The United States, prohibited by law from engaging in nuclear cooperation with Argentina, continued to encourage that country to accept full-scope safeguards on its nuclear activities. It also encouraged Argentina to ratify the Treaty of Tlatelolco as a political statement of peaceful nuclear intent.

China

In April, the United States and China initialed an agreement for peaceful nuclear cooperation between the two countries. This agreement was the culmination of negotiations on nuclear issues with China which covered both the text of the agreement itself, which contained conditions and guarantees governing the transfer of peaceful nuclear equipment and material, and China's policy on nuclear nonproliferation.

While the text of the agreement fully meets the requirements of US law, the Executive Branch has not yet signed it or submitted it to Congress so that the Executive Branch can determine that all necessary steps have been taken to ensure a full, mutual understanding with the Chinese of matters related to its implementation.

Regarding Chinese nonproliferation policy, the United States has welcomed Chinese statements that it does not engage in nuclear proliferation and does not assist other countries to develop nuclear weapons, and that it will require IAEA safeguards on its nuclear exports to non-nuclear weapon states.

India

During the first half of 1984 the United States and India continued to discuss the supply of health and safety-related spare parts for India's Tarapur power reactors. This issue

had become a matter of public attention in late 1983. India was seeking these components from a variety of foreign suppliers.

Pakistan

The Pakistani nuclear program continues to play a major role in US-Pakistani relations. The United States has emphasized to the Government of Pakistan at the highest levels the linkage between US security assistance and certain restraint in the Pakistani nuclear program.

In February 1984, the government of Pakistan announced publicly that it had achieved the capability to enrich uranium. President Zia has stated publicly that the Pakistani enrichment facility is producing low enriched uranium for Pakistan's civil nuclear program. However, this development is extremely significant since the Pakistani uranium enrichment facility is not subject to IAEA safeguards.

Congress as well as the Executive Branch is concerned about Pakistani nuclear developments. In June, Senator Cranston gave a speech on this subject, and amendments were introduced to the foreign aid provisions of the continuing resolution which would prohibit future US security assistance to Pakistan if that country engages in a nuclear explosive development program; if it acquires material, technology, and equipment for use in nuclear explosive devices; or if it begins separating and stockpiling quantities of plutonium or high-enriched uranium. Although these amendments were not

approved, Pakistan remains a primary US proliferation concern. For this reason, the United States maintains a continuing dialog with the Government of Pakistan on this subject.

South Africa

In late January, the chairman of South Africa's Atomic Energy Cooperation Committee announced that the Government of South Africa would abide by the spirit, principles, and goals of the Non-Proliferation Treaty and the Nuclear Suppliers Group Guidelines. At the same time, he announced that South Africa would require application of IAEA safequards and a statement of peaceful nuclear intent on its sales of nuclear material, equipment, or technology identified on the "Trigger List". Finally, he indicated South Africa's intent to place under safeguards its semicommercial uranium enrichment plant.

The United States welcomed these developments and continued throughout the year to maintain a constructive dialogue with the Government of South Africa on nonproliferation matters. The United States continues to believe that South Africa adherence to the Non-Proliferation Treaty would be beneficial to that country.

5. VERIFICATION AND COMPLIANCE

Verification refers to the process of assessing the degree to which an arms control agreement is verifiable, and of assessing compliance with the provisions contained in arms control treaties and agreements. Arms control treaty verification figures prominently in public discussions, as well as in the negotiation of arms control agreements. The meaning and purpose of verification measures are often not well understood. To some extent this results from the confidential nature of negotiations. But the principal reason is the considerable political and technical complexity of the verification process itself.

A nation's armaments are an important guarantor of its security. Governments have always sought to deny to potential adversaries precise information regarding the numbers, quality, and disposition of their weapons and armed forces. While in open societies such as the United States, information on military forces is more readily available, the Soviet Union, as a closed society, is capable of denying much of this information. Moreover, any arms program that is deliberately in violation of an arms control agreement should be assumed to involve a special effort to conceal the fact or at least the extent of the violation. The scope of Soviet concealment and deception activities continues to increase with regard

to its military program areas including those subject to arms control agreements. The Soviet program is extensive, though not always successful. However, since concealment activities can be expected to deny evidence of violations, and since the information required to ascertain compliance may require acquisition of data not considered of highest priority for other purposes, dedicated efforts are required to support verification of arms limitation agreements.

A nation cannot afford to base its security on trust alone. On the other hand, perfect verification is not possible, primarily for irremedial reasons. Realistic fiscal reasons will also limit the degree of verification possible.

Verification of Arms Control Agreements

The Purposes of Verification

The verification of arms control agreements has three distinct purposes:

First, verification efforts serve to detect violations of an agreement by evaluating pertinent evidence that violation of an agreement may have occurred, thereby furnishing, as far as is possible, timely warning of a threat to the nation's security.

Second, by increasing the risk of detection and complicating any scheme of evasion, verification may help to deter violations of an agreement. This deterrent function presupposes that detection of a violation will involve some concrete

response to counter the illegal activity. The deterrent value of verification also depends to a considerable extent on a potential violator's uncertainty as to the exact capability of the intelligence techniques used to monitor his compliance with an agreement--a fact which helps to explain the importance of secrecy regarding many of these techniques.

Third, effective verification is essential to ensure domestic and international confidence in the viability of a particular arms control agreement and in the integrity of the entire arms control process. It provides an important safeguard against the pursuit of advantage through one-sided observance of treaty provisions.

The Effectiveness of Verification

The process of assessing the effectiveness of verification, or verifiability, of an agreement has two phases:

The first phase is a technical and analytic process, which weighs present and programmed US collection, processing, analysis, and reporting capabilities against the activities to be controlled, taking into account the standard of evidence necessary to conclude that noncompliance has occurred. Not only national technical means but the possible applicability and effectiveness of cooperative measures must also be considered in this process. Such an assessment must assume for purposes of analysis that attempted violations would be accompanied by concealment and deception, and take account of alterations

in Soviet standard practices that could thwart or impede verification. This phase provides an assessment of the degree to which compliance with an agreement, including the agreement's object and purpose, can be verified by identifying those evasion scenarios that may be implemented should the Soviets attempt to evade the Treaty.

The second phase involves a broader assessment by the national leadership of whether verification is effective. This assessment must take into account not only technical capabilities and potential evasion scenarios, or the results of the first phase, but other factors including:

- o the costs and risks of evasion;
- o the degree to which non-compliance would pose a risk to US national security, and the extent to which we could compensate for it;
- o the impact of potentially unresolvable compliance concerns on the arms control environment and bilateral relations in general;
- o the specific incentives that a party might have to violate an agreement, and the past compliance record of a party; and
- o the ease and speed with which it would be possible for the United States to deny the benefits gained from noncompliance; and the likely perceptions about the extent to which the United States would be willing and able to deny any benefits gained from noncompliance.

If nations of comparable strength contract mutual limitations on their armaments or behavior, they do so because each believes its net interests are in fact better served by an agreement than by the absence of one. However, a nation may attempt to gain unilateral advantage by negotiating an agreement it does not intend to respect, or by violating an agreement it has made. Where standards for verification are set too low, violations may be invited, and the constraints exercised by an agreement may become a liability for the side that commits itself to observe them.

The quality of the evidence needed to support a conclusion that a violation has occurred is an inextricable part of verification. While more philosophical than the issues previously discussed, it may be the most significant aspect of the difficulty in verifying compliance. The quality of the evidence needed for verification is directly related to the standard of judgment used in determining that noncompliance has occurred. If the standard for a judgment of noncompliance is "beyond a reasonable doubt," verification would likely require corroborating data from independent sources and several detections from each source. That standard is not likely in the real world. If the standard for a judgment of noncompliance is "preponderance of evidence," as it should be, then less exhaustive, but still very substantial data will be required for verification.

In January 1984, President Reagan submitted to Congress a report on Soviet noncompliance with arms control agreements. A summary of the findings of this report was also made public and included in last year's ACDA Annual Report. The President's report includes a determination that "with regard to seven initial issues analyzed, violations and probable violations have occurred with respect to a number of Soviet legal obligations and political commitments in the arms control field." The nature and extent of these violations have important implications for the future of arms control and verification.

Risk and the Standards of Verification

Of particular importance in determining the effectiveness of verification is the degree of risk to those parties that abide by their political and legal commitments to arms control posed by possible violations. Greater uncertainties might be tolerable in the verification of an agreement where violations would not create a military threat. Such is the case, for example, with respect to proposed limitations on radiological weapons or the existing agreements against emplacement of weapons of mass destruction on the ocean floor. The prohibited weapons or activities are of questionable military utility at best, and it is difficult to see how they could confer a significant military or political advantage. At the same time, it is essential to take full account of differences in military incentives, strategic doctrine, and outlook between

the parties to an agreement of this sort. At the time of the signing of the Biological and Toxin Weapons Convention (1972), it was widely believed that such weapons held little military promise and that states--particularly nuclear powers --therefore had few incentives to develop them. The use of toxins by the Soviet Union or supplied to its allies in recent years has called that judgment into question.

It is sometimes argued that significant uncertainties can be tolerated in agreements limiting nuclear arms, on the grounds that even relatively large imbalances in nuclear forces are not militarily significant, or do not materially increase the risk of nuclear war or the levels of destructiveness such a war would entail. This view fails to consider the special character of Soviet military doctrine, its impact on Soviet forces, and the possibility that the Soviets ascribe utility to imbalances in nuclear force levels, and hence might seek to take advantage of an agreement lacking effectively verifiable limitations on strategic or theater arms. The unique military significance and political salience of nuclear weapons as such imposes a higher, not a lower, standard for the effectiveness of verification.

In addition to the military risks brought about by Soviet violations of agreements and commitments in the arms control field, violations of arms control agreements call into question the effectiveness of the arms control process itself. Even violations which may be considered to be militarily insignificant

affect the degree to which the Soviets may be considered as reliable partners in arms control. In this way, unresolved verification issues affect US-Soviet relations in general, and confidence in the arms control process in particular. To assure confidence in the potential benefits of arms control, especially in the face of violations, the Soviets must demonstrate their willingness to comply with the object, purpose, and provisions of the agreements to which they subscribe.

United States policy seeks to correct these compliance problems. Throughout a number of diplomatic exchanges and in the rounds of the Standing Consultative Commission (SCC) the United States has been addressing these problems and has been developing arms control proposals that limit key military capabilities that can be verified with high confidence. A firm and continuing commitment by the United States to negotiate limitations on armaments requires a shared confidence on the part of the concerned branches of government and the public at large that arms control measures are compatible with--and indeed an integral part of--the security of our nation. Such confidence will itself depend in substantial part on our assurance that reciprocal limitations continue to be observed by others. Verification and enforcement of compliance with agreements are essential for that confidence and are a precondition for further progress in arms control generally.

Compliance With Existing Arms Control Agreements

On January 23, 1984, the President sent to Congress a classified report which examined the evidence concerning Soviet noncompliance with their legal obligations or political commitments under the 1975 Biological Weapons Convention (BWC) and customary international law as codified in the 1925 Geneva Protocol, the 1972 ABM Treaty, the 1972 Interim Agreement, the unratified SALT II Treaty signed in 1979, the unratified Threshold Test Ban Treaty (TTBT) signed in 1974, and Basket I of the Helsinki Final Act signed in 1975. The report was based on studies carried out by the Analysis Group of the interagency Arms Control Verification Committee (ACVC), which the President established in 1982. The Analysis Group of the ACVC is co-chaired by the ACDA Assistant Director for Verification and Intelligence and a senior officer of the US Intelligence Community.

The studies by this group resulted in the US Government's determinations that the Soviet Union has violated or probably violated at least seven of its undertakings related to these treaties. These findings were addressed in a supplement to the 1983 ACDA Annual Report.

Soviet noncompliance is a serious matter. As noted, it calls into question important security benefits from arms control, and could create new security risks. It undermines the confidence essential to an effective arms control process in the future. It increases doubts about the reliability of

the USSR as a negotiating partner, and thus damages the chances for establishing a more constructive US-Soviet relationship.

The following is a discussion of the issues and the findings addressed in the President's January 23, 1984, Report to the Congress on Soviet Noncompliance with Arms Control Agreements. In 1985 the ACVC will complete another study of Soviet compliance to update the previous study and to analyze additional issues relating to possible Soviet noncompliance with arms control agreements.

ABM Treaty

The ABM Treaty entered into force on October 3, 1972. Since its entry into force, the US has had numerous concerns regarding possible Soviet non-compliance; these concerns have been and continue to be discussed in confidential diplomatic channels. Of particular concern to the United States now is the large phased array radar facility under construction in Siberia.

In an effort to preclude a territorial ABM defense, the Treaty limits the deployment of radars for early warning of ballistic missile attack to locations along the national periphery of each party and requires that they be oriented outward. The Treaty permits deployments (without regard to location or orientation) of large phased-array radars for purposes of tracking objects in outer space or for use as

national technical means of verification of compliance with arms control agreements.

The administration has concluded that the new radar almost certainly constitutes a violation of Treaty obligations with respect to its siting, orientation and capability.

Interim Agreement

The Interim Agreement on Certain Measures With Respect to the Limitation of Strategic Offensive Arms entered into force on October 3, 1972. This Agreement froze at existing levels the number of strategic ballistic missile launchers on each side, and permitted the replacement of older intercontinental ballistic missiles (ICBM) launchers, after they had been dismantled or destroyed, by submarine launched ballistic missile (SLBM) launchers on a one-for-one basis. While the Interim Agreement expired in October 1977, both sides have stated they would continue to observe its provisions, including, as provided for in the Agreement, the exchange of information about implementation of the Agreement and, the discussion of questions related to compliance with its provisions. In the past, questions have been raised regarding Soviet compliance with the provisions of the Interim Agreement. In response to US expression of concern in the SCC, Soviet actions have satisfactorily resolved destruction and dismantling issues.

The SALT II Treaty

The SALT II Treaty was signed in June 1979. It was not ratified and thus did not enter into force. The Protocol to that Treaty, which applied principally to mobile ICBMs and to land-based and sea-based cruise missiles, expired by its own terms on December 31, 1981. The President stated on May 31, 1982, that the United States would refrain from actions which would undercut existing strategic arms agreements as long as the Soviet Union showed equal restraint. The Soviet Union has also indicated that it will abide by the provisions of the SALT II Treaty as long as the US does so.

Compliance concerns included Soviet testing of a possible second new type of ICBM (the SS-X-25), which is prohibited (in view of the Soviet declaration that the SS-X-24 is their allowed one new type ICBM); the RV-to-throw weight ratio of that missile, even if not a new type; and the effect of the encryption of its test data.

The US concluded that while the evidence is somewhat ambiguous, the SS-X-25 is a probable violation of the Soviet Union's political commitment to observe the SALT II provision limiting each party to one new type of ICBM. Furthermore, even if the United States were to accept the Soviet argument that the SS-X-25 is not a prohibited new type of ICBM, based on the data available, it would be a violation of their political commitment to observe the SALT II provision which prohibits (for existing types of single re-entry vehicle ICBMs) the testing

of such an ICBM with a re-entry vehicle whose weight is less than 50 percent of the throw-weight of that ICBM.

There continues to be concern about whether the Soviets have deployed at Plesetsk the SS-16 ICBM in spite of the ban on its deployment. While the available evidence is somewhat ambiguous and does not permit a definitive conclusion, the activities at Plesetsk continue to be in probable violation of the legal obligation not to defeat the object and purpose of SALT II before 1981 (during the period when the treaty was pending ratification), and a probable violation of a political commitment after 1981.

The evidence was carefully reviewed to determine whether the Soviets have engaged in encryption of missile test telemetry (radio signals) so as to impede verification. It was concluded that Soviet encryption practices constitute a violation of a legal obligation prior to 1981 and a violation of their political commitment subsequent to 1981. The nature and extent of encryption of telemetry on new ballistic missiles is an example of deliberate impeding of verification of compliance in violation of this Soviet political commitment.

Chemical and Biological Weapons

There are two existing arms control treaties covering biological and chemical weapons. The 1925 Geneva Protocol bans use in war of such weapons, and the 1972 Biological and Toxin Weapons Convention (BWC) prohibits development, production,

stockpiling, acquisition, retention, and transfer of biological agents or toxins for hostile purposes.

The Soviets, by maintaining an offensive biological warfare program and capabilities and through their involvement in the production, transfer and use of toxins and other lethal chemical warfare agents that have been used in Laos, Kampuchea and Afghanistan, have repeatedly violated their legal obligations under the BWC and customary international law as codified in the 1925 Geneva Protocol.

The United States continues to monitor the provisions of the Biological and Toxin Weapons Convention, the Geneva Protocol, and associated customary international laws. In 1979 chemical weapons were used by Soviet forces in Afghanistan, a practice that apparently continued into the 1980s. In 1983 the world witnessed the use of chemical weapons in the war between Iraq and Iran.

The United States has directed particular attention to the growing problems of proliferation of chemical weapons. In the past year, the United States took steps to impose special export controls on chemicals destined for Iraq and Iran which could be used in the production of chemical agents. A number of other Western countries followed suit in an international effort to halt chemical warfare in that conflict zone.

The assessment of requirements and resources needed to verify chemical and biological arms control agreements, as mandated in the Quayle amendment to the FY-85 DOD Authorization

Conference Report and Bill, will be based on studies carried out by the Analysis Group of the ACVC.

Threshold Test Ban Treaty and Peaceful Nuclear Explosions Treaty

The Treaty between the United States and the Soviet Union on the Limitation of Underground Nuclear Weapon Tests, also known as the Threshold Test Ban Treaty (TTBT), was signed in July 1974. It established a nuclear "threshold," by prohibiting underground nuclear weapon tests having a yield exceeding 150 kilotons. The Peaceful Underground Nuclear Explosions Treaty (PNET) between the US and the USSR was signed in May 1976. This treaty limits individual explosions to 150 kilotons, in a manner consistent with the TTBT limits on weapons tests. Neither of these two treaties has been ratified.

In 1976, the United States stated that it would observe the 150-kiloton limit established by the TTBT, pending entry into force of the TTBT and the PNET, as long as the Soviet Union did so. The Soviet Union issued a similar statement. Since that time, questions about Soviet observance of the 150-kiloton limit have arisen on several occasions. Because the available evidence is ambiguous in view of the ambiguities in the pattern of Soviet testing, and in view of verification uncertainties, the United States has been unable to reach a definitive conclusion about the Soviet adherence to the TTBT. However, evidence indicates that Soviet nuclear testing activities

for a number of tests constitute a likely violation of legal obligations under the TTBT.

The United States has since 1982 sought discussions with the Soviet Union about means for improving the verifiability of these treaties. (The Soviets have refused, saying that the United States should ratify these treaties.) Also, at the United Nations last September, President Reagan proposed "that we find a way for Soviet experts to come to the United States' nuclear test site and for ours to go to theirs to measure directly the yields of nuclear weapons."

Helsinki Final Act

The USSR by its inadequate notification of the Zapad-81 military exercise, which occured on September 4-12, 1981, violated its political commitment under the Helsinki Final Act of 1975 to observe the Confidence-Building Measure requiring appropriate prior notification of military exercises involving more than 25,000 ground troops.

Limited Test Ban Treaty

The Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Underwater, also known as the Limited Test Ban Treaty, was signed in August 1963 and was ratified by the United States in October 1963. Over 100 nations have now ratified this treaty. The treaty prohibits the following activities:

- o nuclear explosions in the atmosphere; beyond its limits, including outer space; or underwater, including territorial waters or high seas; and
- o nuclear explosions in any other environment if they cause radioactive debris to be present outside the territorial limits of the state that conducted the explosions.

Since 1963, there has been no indication of any Soviet testing in prohibited environments; that is, there has been no indication of any tests conducted by the Soviet Union in the atmosphere, in outer space, or underwater. However, venting of radioactive debris into the atmosphere from Soviet underground nuclear tests continues to be of concern. The Soviet Union has failed to take the precautions necessary to minimize the contamination of man's environment by radioactive substances despite US requests for corrective actions.

Antarctic Treaty

The Antarctic Treaty establishes a basis for international cooperation in Antarctica. It reserves Antarctica exclusively for peaceful purposes and prohibits any activity of a military nature in the region. It is unique in that it established for Consulting Parties the right of complete and free access at any time to all areas of Antarctica. This is the only treaty under which on-site inspections of Soviet installations have been conducted.

By agreement with the Department of State, which has responsibility for coordinating Antarctic policy, ACDA takes the lead in planning, managing and evaluating inspections by US observers. Several such inspections have been conducted in the past and, during 1984, initial planning was begun for future inspection activities. No evidence of noncompliance was found during the earlier inspections.

Seabed Treaty

The Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof--called the Seabed Treaty--entered into force on May 18, 1972. Over 100 governments have now ratified, acceded to, or signed the Treaty. The geographic extent of the area of applicability covered by the Treaty commences at 12 miles from the coast and includes all the seabed area from this point seaward. Consequently, the Treaty accords equality of treatment to all coastal parties in their activities within the 12-mile seabed zone off their coasts. All evidence points to the fact that the parties to the Treaty are complying with the Treaty's provisions.

6. ARMS AND TECHNOLOGY TRANSFERS

In 1984, ACDA continued to participate in the formulation and implementation of US policy on the transfer of conventional arms and militarily useful technology to ensure that arms control considerations are fully factored into the decision-making process.

ACDA's arms transfer activities are carried out within the framework of Administration policy and statutory requirements. The President's arms transfer policy of July 1981 recognizes that arms transfers, judiciously used, play an important part in helping to deter aggression, in demonstrating our enduring interest in the security of friends and allies, and in fostering regional stability.

The Administration's arms transfer policy requires that arms control factors be given due consideration in the decision-making process. Each request for arms is carefully evaluated on a case-by-case basis, primarily in terms of its net contribution to enhanced deterrence and defense. Particular attention is given to requests for advanced or sensitive weapons, and for coproduction arrangements. US arms transfers continue to be directed toward meeting important national security and foreign policy interests without adversely affecting regional stability.

Pursuant to the Arms Export Control Act and the Foreign Assistance Act of 1961, as amended, decisions to transfer arms are coordinated with the Director of ACDA, and the Director's opinion is taken into account on the extent to which proposed transfers might:

- o Contribute to an arms race
- o Increase the possibility of outbreak or escalation of conflict
- o Prejudice the development of bilateral or multilateral arms control arrangements.

Arms Transfers

In 1984, ACDA evaluated and rendered its opinion on approximately 1500 cases involving both Foreign Military Sales and commercial export license requests for military equipment. Many of these cases included the transfer of more than one item to more than one country.

ACDA's Assistant Director for Nuclear and Weapons Control is a member of the senior-level Interagency Arms Transfer Management Group, which assists the Under Secretary of State for Security Assistance, Science and Technology, in advising the Secretary on arms transfer and security assistance matters. In 1984, the Agency also continued its participation in the Security Assistance Program Review Working Group, which focuses on security assistance programs and legislation. As a member of this working group, ACDA participated in the

development of Fiscal Year 1986 US security assistance programs, and prepared statements of arms control considerations required by the Congress in conjunction with the annual program request. These statements include, for each recipient country, an analysis of the relationship between expected sales to that country and arms control efforts relating to the country, as well as an assessment of the impact of anticipated sales on regional stability.

In Fiscal Year 1984, the value of US Foreign Military Sales and Military Construction Sales agreements--by far the largest component of US military transfers--declined for the second consecutive year. Sales totaled $14.6 billion, a drop of 18 percent from the FY 1983 level, and 29 percent from the FY 1982 level. Our NATO allies were by far the largest purchasers, signing agreements constituting 52 percent of the total.

US arms transfers to Europe are intended primarily to assist NATO allies in meeting common defense needs and in undertaking the force modernization required to compensate for the numerically superior conventional force capabilities of the Warsaw Pact.

In the Middle East, US arms transfers in 1984 served United States foreign policy interests by helping friendly states maintain their strength, reducing the likelihood of direct Soviet intervention, offsetting Soviet support to proxy

states, and contributing to the containment or resolution of subregional conflicts. US arms transfer policies toward the area are designed to encourage Israel and its neighbors to move toward a peaceful settlement along the lines proposed by President Reagan in September 1982. At the same time, the United States remains committed to maintain Israel's qualitative technological edge.. Major efforts also were made in 1984 to assist the Government of Lebanon in bringing stability to that country. The Administration discouraged new sales of major weapons but continued to supply ammunition and other expendable items as the Government of Lebanon searches for an internal solution to the violence there.

In the Persian Gulf, the United States continued to assist in the defense of Saudi Arabia and other members of the Gulf Cooperation Council in order to help them to contain the possible spread of the Iran-Iraq conflict across the Gulf or to the Straits of Hormuz. The United States refrained from supplying arms to either side in the Iran-Iraq war, exercised tight controls on exports of dual-use items, and sought to discourage weapons sales to Iran by other friendly nations.

In North Africa, US policy has been to counter Libyan adventurism, which continued to be supported by massive arms transfers from the Soviet Union. During the period 1978-1982, Libya was the second largest arms importer in the world,

receiving $11.5 billion worth of weapons, of which half the value came from the Soviet Union. At the same time, the United States has sought to maintain close relationships with friendly states in the region and to improve ties with Algeria. The United States has continued to encourage mediation of the conflict in the Western Sahara while supporting Morocco's legitimate defense requirements.

In sub-Saharan Africa, the United States supplied modest quantities of military equipment to enable friendly countries to improve their border patrol and self-defense capabilities. Examples of military assistance to stabilize the region include emergency support to Chad in order to check Libyan-sponsored aggression, provision of transport equipment and communications gear to countries in central and western Africa to reduce the threat of Libyan adventurism, and arms transfers to Sudan to strengthen that country's air defense and border surveillance capabilities in the face of Libyan and Ethiopian destabilization efforts.

In the Horn of Africa, American military assistance was directed toward helping Somalia prevent attacks by Ethiopian-supported forces. Despite enormous economic problems, Ethiopia maintains an extensive military supply relationship with the Soviet Union and continues to host large numbers of Cuban military personnel. Meanwhile, Kenya acquired US military hardware to improve its ability to protect its borders.

In South Asia, US arms transfer policies have sought to maintain the independence of Pakistan in the face of Soviet aggression in neighboring Afghanistan, and to enhance Pakistan's ability to counter cross-border raids into its territory. The US has also sought to improve US-Indian relations and to avoid those transfers which would significantly alter the Indo-Pakistani balance. During the year the United States continued to appeal to both India and Pakistan to settle the disputes between these traditional regional rivals.

Arms transfers in 1984 also continued to be directed toward strengthening stability in East Asia and the Pacific. US transfers to the Republic of Korea were designed to improve the ability of that country to deter and defend against potential aggression from the North while redressing the quantitative imbalance on the peninsula. Military sales to Japan improved the ability of that country to defend its territory and sea lanes out to 1000 miles. Modest arms transfers to China were continued on a case-by-case basis, and, in 1984, for the first time, China was officially made eligible for Foreign Military Sales on a cash basis. Transfers to Taiwan were in compliance with, and guided by, both the Taiwan Relations Act and the US-China Joint Communique.

In Southeast Asia, members of the Association of Southeast Asian nations continued modest acquisition of American arms to defend themselves against potential aggression. Of

particular concern in this regard were the continued Vietnamese provocations and border incursions vis-a-vis Thailand.

Elsewhere in the Pacific, the United States continued to assist our treaty allies Australia and New Zealand with their modest but important modernization programs.

In contrast to Soviet exports of massive amounts of heavy military equipment to Cuba and Nicaragua, US arms transfers to Latin America during the past year remained relatively constant and modest. Due to the nature of the security threats and economic conditions in the region, the United States generally avoided the transfer of costly and sophisticated military hardware. Rather, modest US arms transfers to Latin America were directed toward promoting regional stability by strengthening the self-defense capabilities of friendly nations, particularly those threatened by Cuban, Nicaraguan, and Soviet-sponsored subversion.

In Central America, US security assistance is designed to counter Communist-supported insurgency, terrorism, and economic sabotage, and to deter potential threats from Nicaragua, which is engaged in a relentless military buildup. Such assistance is necessary to provide a security base for political, economic, and social development. Overall, American foreign aid to the the region remains predominantly economic.

The United States strongly encouraged efforts by the Contadora Group -- Mexico, Panama, Colombia, and Venezuela--

to define a comprehensive, equitable, and verifiable peace framework for Central America. The United States continues to support the goals of the September 1983 Document of Objectives, which, among others, calls for controls on weapons and troop levels, limitations on the numbers of foreign military and security advisers, a ban on illegal arms trafficking, an end to support for subversion, and the establishment of democratic, pluralistic political institutions.

Experience to date indicates that the Administration's arms transfer policy has been successful in permitting us to meet important American security needs, while at the same time avoiding transfers which could adversely affect regional stability. The Administration has exercised restraint with respect to arms transfers and remains prepared to consider specific proposals for serious multilateral efforts directed toward that end. In his address to the United Nations General Assembly on September 24, 1984, President Reagan noted the particular responsibility of the United States and the Soviet Union to seek political solutions to regional conflicts rather than to exacerbate them through the provision of even more weapons. ACDA Director Adelman, in his October 25 address to the First Committee of the General Assembly, stated:

> Every conflict being fought today, in however remote a part of the world, carries a particular risk for world security in the nuclear age. It is thus an urgent matter to get at the regional sources of these conflicts and to take steps to curb the increase of armaments that fuels such conflicts.

Effective arms transfer limitations, however, will require the cooperation of other countries and, to date, there has been little or no interest in concrete approaches to the achievement of arms transfer limitations shown by the Soviet Union or, for that matter, by most other arms suppliers or recipient countries. The Soviet Union has continued to use arms transfers as a major instrument for extending its influence, exploiting regional conflicts, and acquiring hard currencies.

Technology Transfer

Together with its efforts to ensure that arms transfers are used in ways which enhance stability, ACDA seeks to assist in the effective control over those civilian exports which contain technology with potential military utility. These "dual-use" technologies are a prime target of Soviet overt and covert acquisition efforts, and have been a major factor in enhancing Soviet bloc military capability.

In response to this problem, ACDA continued to participate in interagency efforts to review export license applications, to enhance the effectiveness of multilateral controls through the Coordinating Committee, and to strengthen the national security provisions of the Export Administration Act. Since the expiration of this Act in September 1983, the International Economic Emergency Powers Act was used to prevent a lapse in US export controls on dual-use technology and to control exports of strategic technologies to proscribed destinations.

In its review of export license applications, ACDA has been particularly concerned with cases involving possible transfers of strategic technologies to US military adversaries and those with a potentially adverse effect on regional stability.

ACDA continued to participate in the interagency Advisory Committee on Export Policy (ACEP), chaired by the Department of Commerce, and in its subsidiary organs, the Sub-ACEP and the Operating Committee. The Agency is also a member of a Senior Interagency Group on the Transfer of Strategic Technology (SIG/ST), which coordinates the efforts of some 18 agencies to tighten controls on the transfer of militarily relevant technologies and equipment to potential adversaries. Under the SIG/ST, ACDA managed a public awareness program to inform the business community and the public about US technology transfer concerns.

ACDA has given special attention to the transfer of civil space-related technology to ensure that such technology is used only for peaceful purposes. This work complements ACDA's nuclear nonproliferation activities.

7. RESEARCH AND PUBLICATIONS

An important element of the 1961 Act which established ACDA was the charge to the Agency to use scientific, economic, political, legal, social, psychological, military, and technological factors to "insure the acquisition of a fund of theoretical and practical knowledge concerning disarmament" and to use research directed to the "detection, identification, inspection, reduction, control, and elimination of armed forces and armaments in space, in areas on and beneath the earth's surface, and in underwater regions." ACDA officers were engaged in a panoply of research efforts and in the administration of external research projects in support of this mandate throughout 1984.

Some of the research either supported or was contained in the Administration's Arms Control Impact Statements and the Agency reports entitled World Military Expenditures and Arms Transfers and Documents on Disarmament. Other completed research took the form of papers on the Soviet economy, on verification of arms control agreements, on technological trends in military procurement, and on nuclear nonproliferation issues.

Arms Control Impact Statements

In accordance with legislation passed by Congress in 1975, the Executive Branch is required to submit annually its analyses of various military and technology programs "with respect to (their) impact on arms control and disarmament policy and negotiations." The law specifies that an Arms Control Impact Statement (ACIS) be submitted along with each request for authorization and appropriation of funds for all nuclear weapon-related programs, certain defense programs which exceed specified costs, and other technology and weapons systems which the Executive Branch decides may have a significant effect on arms control. The ACIS requirement is designed to improve Executive Branch decision-making with respect to the military and arms control components of national security policy and to strengthen and enhance meaningful congressional participation in these decisions.

ACDA prepares the initial draft of each impact analysis and chairs the interagency working group which produces the final statement. Following approval by the President, all of the ACIS are transmitted to the Congress by the Director of ACDA on behalf of the Administration. No other nation has such a formalized and systematic process for assessing the arms control implications of weapons procurement and technological developments.

During 1984, the Administration completed preparation of ACIS to accompany the FY 1985 budget. These ACIS clustered programs into nine impact statements which analyzed in detail the weapon systems of most current interest in an arms control sense. In general it was found that these programs were consistent with US arms control policy and related Presidential decisions.

Also in 1984, ACDA began preparing ACIS for the FY 1986 budget submission. These statements include updates of six earlier ACIS and the combination of earlier ACIS on directed energy and ballistic missile defense into an ACIS on the Strategic Defense Initiative.

World Military Expenditures and Arms Transfers

The fifteenth edition of ACDA's annual compilation of statistics on all countries of the world was published in April 1984. Covering the period 1972-1982, the report contains yearly data on military expenditures, arms imports and exports, armed forces, population, gross national product, central government expenditures, and total imports and exports, together with various ratios of these variables. Tables also show the value of arms deliveries by major supplier to each recipient country and the number of units of arms, by major type, delivered by selected supplier countries and groups to recipient developing regions. The best available data were obtained from various US government and international agencies;

the data were then adjusted where necessary and converted to comparable current and constant dollar terms.

In addition to the statistical tables, the report contains the highlights of the statistics, in graphic, tabular, and narrative form, and two essays. One essay, by Stanley H. Cohn, concerns the relationship between the military-industrial complex and declining capital productivity in the Soviet Union and the other, by Thomas H. Snitch, is on East European involvement in the world arms market.

Among the findings of this year's report is the projection that the world's military spending would pass the one-trillion-dollar level in 1985, after reaching about $820 billion in 1982 and an estimated $970 billion in 1984. World arms transfers amounted to $36 billion in 1982, of which the Soviet Union supplied 30 percent and the United States 26 percent. The Middle East accounted for over one-half of the arms imports of the world's developing countries.

The next edition is to be published the spring of 1985.

Economics Research

ACDA economics officers continued research on economic issues related to arms control and disarmament during the year.

Most of the research was directed toward the Soviet Union. An ACDA paper on Soviet resource allocation, developed for the NATO Economics Colloquium in April, received wide interest

on the part of NATO and the international press. The paper showed that the average annual growth rate of Soviet arms procurement has been decreasing and that Soviet weapons procurement has been slowing down. As an adjunct to such research, an ACDA officer participated during the year in inter-agency meetings on Soviet industry and was a member of the US delegation to a reinforced meeting on Soviet industry at NATO Headquarters in Brussels in October. This meeting was directed to Soviet uses of acquired technology, particularly robotics, computers and micro-electronics.

Other efforts were directed to understanding the nuances of the size and direction of resource allocations to specific weapon systems by NATO and Warsaw Pact countries. Also, the procurement and analysis of data on country military spending and on the international trade in arms continued to be important elements in the overall economic research program.

ACDA provides the US member of the UN expert group on the reduction of military budgets. This group is concerned with country reporting of military expenditures and with meaningful comparisons of military expenditures over time and between countries. The group is seeking ways to account for changes in prices of military goods and to measure the relative value of military spending in diverse currencies. Uncertainties in these aspects make the comparative measurement of country military expenditures very difficult. While the expert group

has attempted to overcome these obstacles, their program for military expenditure data gathering is frustrated by a continued boycott of such UN activities by Soviet bloc countries.

Documents on Disarmament

In 1984, ACDA greatly intensified its efforts to bring its historical series, Documents on Disarmament, up to date. The 1981, 1982, and 1983 volumes will be ready for release during 1985.

Each volume of the series, which has been issued annually since 1960, documents significant arms control and disarmament undertakings through publication of treaties, agreements, laws, reports, statements, resolutions, communiques, proposals, declarations and speeches of both US and foreign origin.

Volumes are available to the public through the US Government Printing Office.

Operations Analysis Studies and Computer Support

Operations analysis studies were completed on both road and rail mobile ICBMs; the studies highlighted primarily verification capabilities and their potential vulnerability to barrage attacks. A study on INF data issues was performed for the purpose of investigating the Soviet position on INF data.

Analyses of the Threshold Test Ban Treaty (TTBT) were carried out to determine the contribution of calibration

tests to the estimation of the yield of Soviet underground nuclear tests. The TTBT calls for such calibration tests upon ratification of the Treaty.

During the year, ACDA continued upgrading its computer operation. Many of the year's activities involved the conversion of computer programs to the new computer. Programs and data bases are being developed in support of all ACDA's activities. Work is continuing on the various information retrieval systems to ensure that in the future all negotiation records and research reports can be rapidly retrieved.

ACDA Library

In addition to its central Reference Collection, housed in ACDA's Washington offices, the Agency also maintains a Special Arms Control Collection, which is open to the public through a cooperative arrangement with the George Washington University. The Agency's Special Collection is located in the Marvin Gelman Library, Room 207, 2130 H Street, NW, Washington, DC, and contains a large number of arms control documents of great value to both scholars and the public.

In 1984, the library began subscribing to the NEXIS automated data base system which is capable of providing the full text of articles that have appeared in the open literature. ACDA's NEXIS terminal is located in its central Reference Collection.

Visiting Scholars Program

In December 1983, the Arms Control and Disarmament Act was amended to provide for the establishment of "a program for visiting scholars in the field of arms control and disarmament." The purpose of this program is "to give specialists in the physical sciences and other disciplines relevant to the Agency's activities an opportunity for active participation in the arms control and disarmament activities of the Agency and to gain for the Agency the perspective and expertise such persons can offer." The law states that the visiting scholars would be chosen by a board consisting of the Director and all former Directors of ACDA.

Implementation began early this year with a notice in the Federal Register announcing the program and the specific activities for which the services of visiting scholars were needed. Similar notices were distributed within ACDA, to all Members of Congress, and to those universities and faculty members indicating interest in such matters. The board, consisting of former directors of ACDA and chaired by ACDA Director Adelman, selected six scholars from among the well qualified candidates.

The scholars' assignments to ACDA were effected under the provisions of the Intergovernmental Personnel Act. The first visiting scholar arrived in July and the other five arrived by September 10 for their one-year assignments with ACDA.

Scholar & University	Bureau Assignment:
Dr. Frederic Bergerson Whittier College Whittier, California	Multilateral Affairs
Dr. Gary Guertner California State University, Fullerton Fullerton, California	Strategic Programs
Dr. Ruth Howes Ball State University Muncie, Indiana	Verification & Intelligence
Dr. Marvin Miller Massachusetts Institute of Technology Cambridge, Massachusetts	Nuclear & Weapons Control
Dr. Paul Richards Lamont - Doherty Geological Observatory Columbia University Palisades, New York	Verification & Intelligence
Dr. Peter Zimmerman Louisiana State University Baton Rouge, Louisiana	Strategic Programs

Planning began in the fall of 1984 for the second year of the Visiting Scholars program.

External Research

In addition to regular and on-going research by ACDA officers during the year, special research efforts were conducted by outside experts and organizations under contract.

The following include some of the topics investigated during the year under the aegis of ACDA's external research program: dependence of the United States and the Soviet Union on space systems, space arms control, arms control implications

of advanced ballistic missile technology, nuclear crisis management, the use of remote sensors for verification of strategic arms control agreements, improvements in the capability of measuring seismic waves from underground explosions, safeguards for nuclear enrichment plants of the aerodynamic type, negotiation history of IAEA basic safeguards documents, the documentation of technical nuclear energy assistance provided by the United States to developing countries, verification of rail mobile ICBMs, an analysis of the Soviet view of US START proposals, and the Soviet interpretation of the concept of stability.

Hubert H. Humphrey Fellowships in Arms Control and Disarmament

ACDA sponsors Hubert H. Humphrey Fellowships in Arms Control which are designed to encourage specialized training and research in the arms control field. The program is part of ACDA's legislatively mandated responsibilities for the conduct, support, and coordination of research on arms control and disarmament policy formulation. Named in honor of Senator Humphrey, who was a strong arms control advocate, Humphrey Fellowships are intended for the support of advanced graduate students who have completed all their Ph.D. requirements, except for the doctoral dissertation. Candidates for the J.D. Degree are also eligible for Humphrey Fellowships during their third year. Seven rounds of competition have been held since the inception of the program in 1979 and a total of 44 awards have been made to date. Five Fellows were selected in 1984.

Selected List of Available ACDA Publications

The following publications were released by ACDA in 1984:

World Military Expenditures and Arms Transfers

Documents on Disarmament

ACDA Annual Report

Soviet Propaganda Campaign Against NATO

Arms Control: US Objectives

8. PUBLIC INFORMATION

The Congress, in establishing ACDA as an independent Agency in 1961, charged the Agency with the dissemination and coordination of public information concerning arms control policies and issues.

This important function is discharged through these key activities:

Media/Public Liaison

-- Responses to written and telephone queries; coordination and monitoring of interviews with ACDA officials and spokespersons; briefings to media and public groups; and encouragement of specialized training and research in the arms control field by advanced graduate students through sponsorship of Hubert H. Humphrey Fellowships in Arms Control.

-- In 1984, ACDA hosted two major seminars for national and international news media. A three-day seminar, co-hosted with the Aspen Institute, involved such participants as the present and former National Security Advisors to the President, present and former chief arms control negotiators, leading opinion-leaders in and out of Government and senior journalists of the major US newspapers and TV networks. A one-day seminar for the top foreign press journalists covering

US arms control/national security issues involved present arms control negotiators as well as senior NSC, State and USIA officials.

Information Releases and Media Guidance

-- External news releases and internal guidance for media responses are cleared and provided in order to maximize the release of unclassified information to the public. Arms control documents maintained and published by ACDA are also provided to scholars and the public. The ACDA News of Interest is provided weekly to 180 current and ex-Government officials, news media representatives, and Congressional representatives.

Public Speaking

-- During 1984, the ACDA Director, Deputy Director, Assistant Directors and many other Agency officials filled numerous speaking engagements, conducted many media interviews, and participated in dozens of symposiums on arms control issues. Following is a chronological list of some of key ACDA principals' public speaking activities:

Jan. 17	Director Kenneth Adelman	ABC Filmed Interview
Jan. 17	Ambassador Paul Nitze	Meeting with President Reagan and Press Conference
Jan. 18	Director Kenneth Adelman	NBC Today Show
Jan. 24	Director Kenneth Adelman	CNN TV Filmed Interview
Jan. 26	Ambassador Paul Nitze	Christian Science Monitor Interview
Jan. 27	Deputy Director David Emery	Press Conference with British Press in London
Jan. 27	Ambassador Edward Rowny	Commonwealth Club in San Francisco
Jan. 30	Ambassador Edward Rowny	Meeting with President Reagan and Press Conference
Jan. 31	Director Kenneth Adelman	Institute for Legislative Research
Jan. 31	Ambassador Edward Rowny	Wake Forest University
Feb. 1	Assistant Director Cooper	American Institute of Aeronautics and Astronautics Conference
Feb. 1	Ambassador Edward Rowny	Midwest Advisory Council Chicago
Feb. 1	Director Kenneth Adelman	Editorial Board of Reader's Digest
Feb. 8	Director Kenneth Adelman	Heritage Foundation
Feb. 9	Deputy Director David Emery	Kiwanis Club Augusta, Maine
Feb. 17	Director Kenneth Adelman	CNN's Evans and Novak Show
Feb. 21	Ambassador Edward Rowny	Overseas Writers Club Washington, DC
Feb. 21	Ambassador Edward Rowny	Heritage Foundation

Feb. 22	Ambassador Paul Nitze	Johns Hopkins University
Feb. 27	Director Kenneth Adelman	World Jewish Congress New York
Feb. 27	Ambassador Paul Nitze	Harvard University, Massachusetts Institute of Technology
Feb. 28	Ambassador Edward Rowny	The American Legion
Mar. 1	Director Kenneth Adelman	Newsweek
Mar. 1	Ambassador Edward Rowny	Fletcher School of Law and Diplomacy
Mar. 16	Director Kenneth Adelman	American Catholic Conference Washington, DC
Mar. 23	PA Director Joseph Lehman	Foreign Service Institute
Mar. 26	Assistant Director Dunn	League of Women Voters South Bend, Indiana
Mar. 27	Ambassador Edward Rowny	Editorial Board of the Philadelphia Enquirer
Mar. 28	Deputy Director David Emery	Knox College and the University of Wisconsin
Apr. 2	Ambassador Edward Rowny	JFK School of Government Harvard University
Apr. 4	Director Kenneth Adelman	Georgetown University School of Foreign Service
Apr. 6	General Counsel Graham	Peacemakers Seminar Cincinnati, Ohio
Apr. 10	Ambassador Edward Rowny	Kiwanis Club Atlanta, Georgia
Apr. 10	Deputy Director David Emery	Dartmouth College
May 1	Director Kenneth Adelman	American Defense Preparedness Assoc., Seattle
May 2	Director Kenneth Adelman	Mid America Committee, Chicago
May 3	Director Kenneth Adelman	Kenna Club, Santa Clara, California

May 4	Director Kenneth Adelman	World Affairs Council of Orange County, Santa Ana, California
May 11	Director Kenneth Adelman	Bilberberg Meeting, Saltsjobaden, Sweden
June 19	Director Kenneth Adelman	UN Association Interview
June 21	Director Kenneth Adelman	Congressional Spouses Meeting, Washington, DC
June 21	Assistant Director Cooper	American Astronautical Society, Washington, DC
June 27	Ambassador Edward Rowny	Interview with New York Times and Time Magazine
July 2	Ambassador Paul Nitze	US News and World Report Interview
July 17	Deputy Director David Emery	Electronic Dialogue with Perth, Australia
Aug. 30	Director Kenneth Adelman	World Affairs Council of San Diego
Sept. 6	Director Kenneth Adelman	World Affairs Council of Pittsburgh
Sept. 17	Director Kenneth Adelman	Washington Institute for Foreign Afairs
Sept. 20	Ambassador Edward Rowny	Foreign Affairs Leadership Forum, Jackson, Mississippi
Sept. 25	Director Kenneth Adelman	Newsweek Interview
Sept. 30	Director Kenneth Adelman	Gulf Coast World Affairs Council
Oct. 3	Director Kenneth Adelman	World Affairs Council
Oct. 10	PA Director Joseph Lehman	George Mason University
Oct. 10	Director Kenneth Adelman	Georgetown University
Oct. 11	Deputy Director David Emery	Air War College
Oct. 12	Director Kenneth Adelman	Interview with Policy Review

Oct. 17	Director Kenneth Adelman	Georgetown University Law Center
Oct. 25	Director Kenneth Adelman	UN General Assembly, New York
Nov. 2	Director Kenneth Adelman	Guardian Interview
Nov. 8	Director Kenneth Adelman	Committee on the Present Danger
Nov. 13	Director Kenneth Adelman	Heritage Foundation
Nov. 14	Ambassador Paul Nitze	UN Disarmament Fellows
Nov. 17	Director Kenneth Adelman	French-American Young Leaders
Nov. 19	Director Kenneth Adelman	The Today Show
Nov. 23	Director Kenneth Adelman	Time Interview
Nov. 26	Director Kenneth Adelman	Detroit Committee on Foreign Relations
Nov. 27	Director Kenneth Adelman	US Space Foundation Colorado Springs
Dec. 5	Director Kenneth Adelman	New York Academy of Sciences
Dec. 13	Director Kenneth Adelman	Institute for Political Analysis

9. THE CONGRESS AND ACDA

ACDA continues to support the broadest range of contacts with Congress on all matters relating to arms control. Formal and informal communication with members of Congress and Congressional staff members keeps Congress informed of arms control efforts and ensures that ACDA receives Congressional comments and suggestions. Over the past few years, as public and Congressional interest in arms control has greatly increased, ACDA has met the demand for information relating to arms control on Capitol Hill through committee hearings, briefings, consultations, and meetings with individual Senators and Congressmen and their staff.

The ACDA Director visited Congress more than 25 times over the past year. Deputy Director Emery and the Assistant Directors continued to conduct well-attended seminars for Congressional staff on arms control issues.

In addition, ACDA presented to Congress in 1984 a comprehensive arms control briefing book which outlines the US negotiating position and goals for multiple arms control issues. As the chart following this section shows, ACDA has covered a broad range of arms control issues in Congress: the US Soviet talks in Geneva on strategic weapons and intermediate range nuclear forces, the MBFR talks in Vienna, the work of the multilateral Geneva Conference on Disarmament

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(CD), the Stockholm Conference on Confidence and Security Building Measures in Europe (CDE), and the United Nations deliberations on disarmament in New York. In addition, ACDA worked with Congress concerning nuclear non-proliferation, an effective ban on chemical weapons, conventional arms transfers, questions concerning a nuclear test ban, verification of arms control measures, and Soviet compliance with existing arms control agreements. Many ACDA officials were involved in Congressional briefings, hearings, and meetings.

Congressional Committee Hearings and Consultations in 1984

Date	Title	ACDA Official	Committee
Jan 11	Chemical Weapons	Louis Fields	Seminar for House Staff
Jan 12	Chemical Weapons	Louis Fields	Seminar for Senate Staff
Jan 31	Compliance	Kenneth Adelman	House Armed Services
Feb 1	Compliance	Kenneth Adelman	House Republican Conference
Feb 3	Chemical Weapons	Robert Mikulak	House Foreign Affairs Staff
Feb 7	START	Edward Rowny	Senate Armed Services
Feb 13	CBM's	Mary Elizabeth Hoinkes Henry Cooper	Seminar for House staff
Feb 14	MBFR	Robert Mikulak Louis Fields	House Foreign Affairs Staff

Date	Title	ACDA Official	Committee
Feb 17	CBM's	Mary Elizabeth Hoinkes Henry Cooper	Seminar for Senate Staff
Feb 20	MBFR	David Emery	Seminar for House Staff
Feb 21	Arms Transfers	Lewis Dunn	House Foreign Affairs
Feb 23	ACDA Appropriations	Kenneth Adelman	House Appropriations
Feb 23	MBFR	David Emery	Seminar for Senate Staff
Feb 24	Non-Proliferation Treaty	Lewis Dunn	Briefing for House and Senate Staff
Feb 27	Compliance	Manfred Eimer Thomas Graham, Jr.	House Armed Services
Feb 28	F-X Policy	Lewis Dunn	House Foreign Affairs
Feb 29	Compliance	Kenneth Adelman	House Republican Conference
Mar 16	Current Issues in Nuclear Non-Proliferation Policy	Lewis A. Dunn	Informal Consultation with House Staff
Apr 5	START	Kenneth Adelman Edward Rowny	Seminar for Senators
Apr 9	Current Issues in Nuclear Non-Proliferation Policy	Lewis Dunn	Informal Consultation with Senate Staff
Apr 10	ASAT	Kenneth Adelman	House Foreign Affairs Subcommittee on International Security and Scientific Affairs

Date	Title	ACDA Official	Committee
Apr 12	ASAT	Henry Cooper	Senate Armed Services
Apr 26	Chemical Weapons	David Emery	Senate Armed Services
Apr 27	Chemical Weapons	David Emery	Seminar for Senate Staff
Apr 27	Chemical Weapons	David Emery	Seminar for House Staff
Apr 30	ACDA Appropriations	Kenneth Adelman	Senate Appropriations
May 8	CBM's	Timothy DeGarve	House Foreign Affairs
May 10	Chemical Weapons	David Emery	House Armed Services
May 10	Space Arms Control	Henry Cooper Manfred Eimer	Senate Foreign Relations
May 11	START	Edward Rowny	Seminar for Senate Staff
May 17	Chemical Weapons Ban and Verification	David Emery	Senate Select Committee on Intelligence
May 24	Arms Control	Manfred Eimer	House Permanent Select Committee on Intelligence
Jun 6	ASAT	Henry Cooper	Senate Select Committee on Intelligence
Jun 11	START	Edward Rowny	Seminar for Senate Staff
Jun 20	Arms Control	Kenneth Adelman	House Foreign Affairs
Jun 20	Confirmation Proceedings	Thomas Etzold	Senate Foreign Relations

Date	Title	ACDA Official	Committee
Jun 28	Chemical Weapons	Kenneth Adelman	Senate Foreign Relations
Jul 12	Consequences of Nuclear Warfare	David Emery	Joint Economic Subcommittee on International Trade
Jul 25	Confirmation Proceedings	Maynard W. Glitman	Senate Foreign Relations
Aug 8	ASAT	Henry Cooper	House Armed Services
Aug 9	MBFR and Chemical Weapons	Thomas Etzold	House Armed Services
Aug 10	Non-Proliferation Policy	Lewis Dunn	Informal Consultations with House and Senate Staff

10. GENERAL ADVISORY COMMITTEE

The Arms Control and Disarmament Act (September 1961) provided for the appointment by the President of a General Advisory Committee to advise the ACDA Director on arms control and disarmament policy and activities and, from time to time, to advise the President, the Secretary of State, and the ACDA Director respecting matters affecting disarmament, world peace, and world law.

The 1984 Committee, chaired by William R. Graham, held meetings in July and October 1984 in Washington DC. The Committee traveled to Geneva, Switzerland, to meet with the US Delegation to the Conference on Disarmament and the US Component of the Standing Consultative Commission. The Committee also traveled to Vienna, Austria, to meet with the US Delegation to the Mutual and Balanced Force Reduction negotiations. The Committee visited the Strategic Air Command Headquarters, Omaha, Nebraska, for a series of briefings on the strategic posture of the United States and the continuing Soviet military buildup.

During the year the Committee reviewed a broad range of arms control issues and continued its analysis of verification issues and the record of Soviet compliance with arms control agreements. A Committee report entitled A Quarter Century of Soviet Compliance Practices Under Arms Control Commitments:

1958-1983 was sent to Congress by the President on October 10, 1984, together with an unclassified summary.

The 1984 General Advisory Committee consisted of the following members:

Chairman, William R. Graham, of California. A founder and Senior Associate, R&D Associates, Marina del Rey, California Served as a consultant to the Office of the Secretary of Defense and the National Research Council in 1968-1981.

Colin Spencer Gray. President of the National Institute for Public Policy in Virginia. Formerly Director of National Security Studies at the Hudson Institute in New York.

Roland F. Herbst, has been with R&D Associates, Marina del Ray, California since 1971. Formerly Deputy Director, Defense Research and Engineering (Space and Strategic Systems), Office of the Secretary of Defense 1969-1971.

Francis P. Hoeber. President of Hoeber Corporation, Arlington, Virginia, since 1974. Formerly with the Rand Corporation (1968-1974) and the Stanford Research Institute from (1960-1968).

Robert B. Hotz. Senior Editorial Consultant for McGraw-Hill Publications. He is also an author and lecturer. Formerly editor-in-chief and publisher of Aviation Week and Space Technology magazine.

Eli S. Jacobs is a private businessman in Los Angeles, California.

Charles Burton Marshall. Resident consultant, Systems Planning Corporation, Arlington, Virginia. Formerly staff consultant to the House Committee on Foreign Affairs, memb - ~ State Department Policy Planning staff, Professor of International Politics at Johns Hopkins School of Advanced International Studies, Washington, DC.

Jaime Oaxaca. President, Wilcox Electric, Incorporated, Kansas City, Missouri.

John P. Roche. Academic Dean and Professor of Civilization and Foreign Affairs at the Fletcher School of Law and Diplomacy, Tufts University, Medford, Massachusetts. Formerly consultant to the Vice President of the United States and the Department of State (1964-1966), and Special Consultant to the President (1966-1968).

Donald H. Rumsfeld. President and Chief Executive Officer, G.D. Searle and Company, Skokie, Illinois. Formerly Secretary of Defense (1975-1976), US Permanent Representative to NATO (1973-1974), member of US Congress (1963-1969).

Harriet Fast Scott. Author and lecturer. She serves as a consultant on Soviet military and political-military affairs

to various research institutions and government organizations. Formerly with Stanford Research Institute.

Lawrence Hirsch Silberman. Partner, Morrison and Foerster, Washington, DC. Also a visiting fellow of the American Enterprise Institute and a member of the Council on Foreign Relations. Formerly Ambassador to Yugoslavia, 1974-1977. Deputy Attorney General of the United States 1974-1975, Under Secretary of Labor, 1970-1973.

11. ACDA ORGANIZATION

ACDA, organized under the Director, includes four bureaus and four offices. Each bureau is further broken down into divisions, each responsible for specific areas of ACDA's mandate. Its full-time equivalent personnel complement was 193, which excludes 31 reimbursable detailed positions from the Department of State and the Department of Defense.

Office of the Director

The Director and Deputy Director advise the President, the National Security Council, the Secretary of State and other senior government officials on arms control and disarmament matters, and their relationship to other aspects of overall national security policy. The Director is responsible for ACDA's negotiations, operations, research activities and public diplomacy efforts.

The Office of the Director includes the following distinct areas of responsibility:

The Ambassador to START

The US Ambassador to START leads the US Delegation to the Strategic Arms Reductions Talks. The START staff assists the Ambassador in his preparation of the US positions and is a component of the START negotiating team. The US Ambassador briefs the President, Secretaries of State and Defense, the

Special Assistant to the President for National Security Affairs, the North Atlantic Council, USNATO, congressional representatives, and other senior level officials. He also is a spokesman for US Government policy in the arms control area and supports ACDA's mandate for increasing public awareness and education.

The Ambassador to the INF

The Ambassador to the INF is the principal US representative to the Intermediate Range Nuclear Force talks. He, with the assistance of his staff, prepares positions for and leads the US delegation, briefs the President, Secretaries of State and Defense, the Special Assistant to the President for National Security Affairs, the North Atlantic Council, USNATO, the Congress and other officials. He also is a spokesman for US Government policy in the arms control area and supports ACDA's mandate for increasing public awareness and education.

The Ambassador to the CD

The Ambassador to the CD is the principal US representative to the Conference on Disarmament. He, with the assistance of his staff, prepares and reviews positions for the US delegation and leads it at CD and UNGA sessions.

The US SCC Commissioner

The Ambassador to the SCC is the US Commissioner on the Standing Consultative Commission. He considers issues on the agenda of the SCC and leads the US Component of the Commission at those sessions. He is assisted by a secretariat which provides support and liaison with the interagency national security community. He heads the advisory staff of the US Component during SCC sessions.

The Executive Director of GAC

The Executive Director of the General Advisory Committee provides operational and administrative support to the GAC, an advisory committee with up to fifteen members who are appointed by the President and confirmed by the Senate.

The Senior Military Adviser

The Senior Military Adviser provides high-level liaison with the Office of the Secretary of Defense and the Joint Chiefs of Staff in areas of policy formulation, arms control negotiations, and ACDA operations.

Bureau of Multilateral Affairs

Arms control issues under the purview of such multilateral fora as the Geneva Conference on Disarmament, the United Nations General Assembly, the Vienna Mutual and Balanced Force Reductions Negotiations, and the Conference on Confidence and

Security Building in Europe are the concern of the Bureau of Multilateral Affairs.

The Bureau is divided into three divisions. The International Relations Division focuses on worldwide fora. The Regional Division deals with fora limited to particular areas of the world. The Science and Technology Division provides expertise on technical aspects of the arms control issues for which the Bureau is responsible.

Bureau of Nuclear and Weapons Control

Agency work and activities on nuclear nonproliferation issues, arms and technology transfers, arms control impact studies, defense economics and economics of arms control, military expenditure recording and analysis, and weapons analyses are carried on in the Bureau of Nuclear and Weapons Control.

The Bureau is organized into four divisions. The International Nuclear Affairs Division provides advice, assessments, and policy recommendations on the international relations aspects of nonproliferation and has line responsibility for reviewing nuclear exports. The Nuclear Safeguards and Technology Division is concerned with the IAEA safeguards system, nuclear fuel cycles, and the technology aspects of nonproliferation. The Arms Transfer Division assesses the arms control implications of proposed arms transfers. The Defense Programs and Analysis Division is responsible for the

annual set of Arms Control Impact Statements, the analysis of weapons technology, the economic analysis of defense programs, the publication of the annual World Military Expenditures Arms Transfers report, the inspection provisions of the Antarctic Treaty, and technology transfer issues related to missiles and space launch vehicles.

Bureau of Strategic Programs

The Bureau of Strategic Programs develops recommendations for arms control policy, strategy, tactics, and language for ongoing and prospective bilateral arms reductions talks with the Soviet Union. The bureau provides organizational support for the START and INF negotiations when in session, the SCC, periodic ABM Treaty reviews, as well as a major portion of the diplomatic, advisory and administrative personnel for the delegations. The Bureau also provides analysis and support for the Director of ACDA on all issues concerning those negotiations or future negotiations, and participates in related interagency working groups. The Bureau has a leading role in the interagency review of possible outer-space arms control measures, including anti-satellite limitations, with the Soviet Union and participates in Administration studies of future technologies for defense against ballistic missiles.

The Bureau also carries out ACDA's responsibility for consulting with allies and representatives of other governments on these matters, for preparing analyses of relevant technical

and military systems and integrating these into the planning process for negotiations, for developing and monitoring ACDA's external research contracts concerning strategic and theater nuclear arms negotiations and outer space, and for providing management direction and administrative support for negotiating and backstopping records maintenance. Bureau personnel work regularly with other bureaus and offices in ACDA in responding to Congressionnal and public requests for information and briefings. The Bureau is organized into two divisions, the Strategic Affairs Division and the Theater Affairs Division.

Bureau of Verification and Intelligence

The Bureau of Verification and Intelligence is responsible for planning, organizing, and supervising the development of policies and studies dealing with the verifiability of provisions of current and projected arms control agreements. The Bureau also provides operations analysis, intelligence, and computer support for all ACDA's activities.

The Bureau is divided into three divisions. The Verification Division deals with verification and compliance issues. The Operations Analysis Division performs analytical studies and provides computer support. The Intelligence Division performs intelligence studies and provides ACDA with necessary intelligence information.

Office of Strategic Analysis

The Office of Strategic Analysis addresses the Director's policy-related concerns which cut across ACDA's organizational areas and which require a long-term perspective for thorough treatment.

Office of General Counsel and Congressional Affairs

This organizational component of ACDA is responsible for matters of domestic and international law relevant to ACDA's work. It provides advice and assistance in drafting and negotiating arms control treaties and agreements, and on questions regarding their approval by Congress, implementation, interpretation, ratification, and revision. Members of the Office serve as legal advisors to negotiating delegations as required. In addition, the Office is involved in extensive legal aspects of ACDA's nuclear nonproliferation responsibilities. It has responsibility for the legal aspects of arms control policy development; for ACDA legislation; and for legal issues in the areas of personnel, security, patents, contracts, procurement, fiscal, and administrative matters.

The Office also has the primary responsibility for congressional liaison. Congressional liaison covers briefings, consultations, hearings, legislative inquiries, visits by Members of Congress to our negotiating fora, and other matters relating to ACDA legislation as well as to the status of proposed and existing arms control agreements.

Office of Public Affairs

The Office of Public Affairs (PA) coordinates ACDA's dissemination of public information. It is responsible for 1) providing information on arms control to the public: arranging for ACDA speakers before public groups, arranging local, national and international interviews of ACDA officials by press, television and radio and responding to thousands of public and news media inquiries: 2) providing guidance to State Department press spokesmen on arms control matters; 3) providing assistance and information to USIA for use abroad; 4) conducting special programs and conferences for nongovernmental organizations and news media; and arranging and conducting briefings in Washington for students and visiting national and international citizens and scholars. PA responds to requests from ACDA and other US Goverment officials on arms control history, some requiring extensive in-depth research. In support of Agency programs it conducts an extensive library program: researching NEXIS and providing articles to Agency requests; maintaining a collection of pertinent books, periodicals, documents and reference materials; circulating on a weekly basis "Current Articles of Interest" regarding not only the available library materials, but also new books, pamphlets and Congressional publications. PA monitors the news on a daily basis and publishes relevant news items in the daily "ACDA News Today." PA is also

responsible for publishing the annual Documents on Disarmament, brief negotiating histories of the pertinent resolutions and other decisions adopted by the UN General Assembly each year, updated bulletins on arms control issues and the bimonthly Intercom internal information bulletin. PA also administers, coordinates and monitors the Hubert H. Humphrey scholarship program with the educational institutions, recipients and within ACDA.

Office of Administration

The Office of Administration has responsibility for ACDA's administrative management and for providing support to all of its components, including its negotiating staffs in Geneva, Stockholm, and Vienna.

Management duties include the administration of all personnel, budget, fiscal, supply, security, communications, research contracts, and general activities. The office maintains close liaison with the Department of State, the General Services Administration, and other organizations providing services on behalf of ACDA.

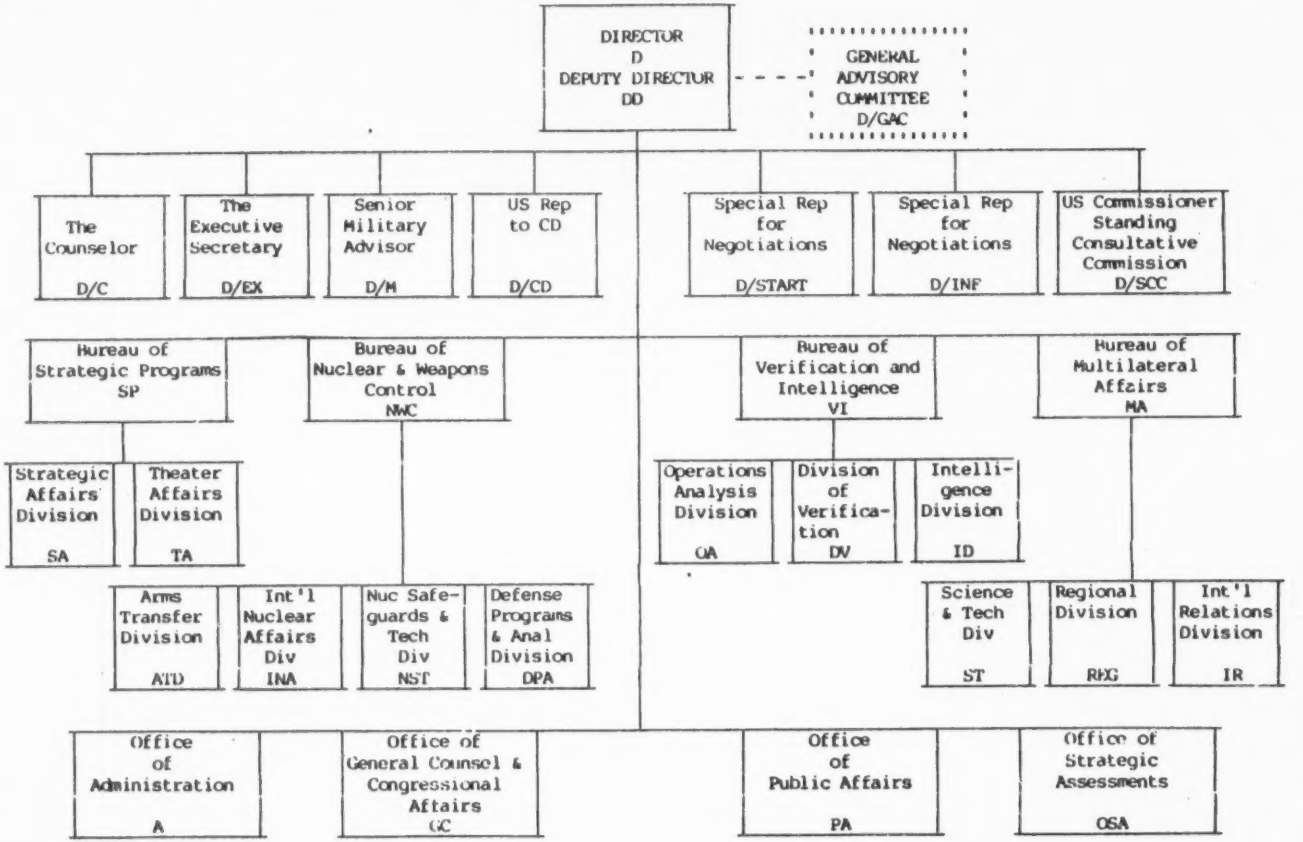
Officials of ACDA

(as of December 31, 1984)

DIRECTOR	Kenneth L. Adelman
DEPUTY DIRECTOR	David Emery
Special Representative for Negotiations (START)	Edward L. Rowny
Special Representative for Negotiations (INF)	Paul Nitze
U.S. Commission, Standing Consultative Commission	Richard H. Ellis
U.S. Representative to the Committee on Disarmament	Vacant
Counselor	Michael Guhin
The Executive Secretary	William B. Staples
Senior Military Adviser	Col. John R. Allen, Jr.
Executive Director, General Advisory Committee	Charles M. Kupperman
ASSISTANT DIRECTOR FOR MULTILATERAL AFFAIRS	Thomas H. Etzold
Deputy	Mary Elizabeth Hoinkes
ASSITANT DIRECTOR FOR STRATEGIC PROGRAMS	Henry Cooper
Deputy	Louis Nosenzo
ASSISTANT DIRECTOR FOR NUCLEAR AND WEAPONS CONTROL	Lewis A. Dunn
Deputy	Archelaus R. Turrentine
ASSISTANT DIRECTOR FOR VERIFICATION AND INTELLIGENCE	Manfred Eimer
Deputy	Robert Barker
GENERAL COUNSEL	Thomas Graham, Jr.
Deputy	Norman Wulf
DIRECTOR OF PUBLIC AFFAIRS	Joseph D. Lehman
Deputy	Vacant
ADMINISTRATIVE DIRECTOR	William J. Montgomery
Deputy	John E. Grassle

UNITED STATES

ARMS CONTROL AND DISARMAMENT AGENCY



APPENDIX I

Bilateral Arms Control Related Agreements Concluded Between the United States and the Soviet Union

June 1963 - December 1984

	Signed	Entered Into Force
"Hot Line" Agreement	6/20/63	6/20/63
"Hot Line" Improvement and Modernization Agreement	9/30/71	9/30/71
Agreement on Measures To Reduce the Risk of Outbreak of Nuclear War	9/30/71	9/30/71
Agreement on Prevention of Incidents on and Over the High Seas	5/25/72	5/25/72
ABM Treaty	5/26/72	10/3/72
Interim Agreement on the Limitation of Strategic Offensive Arms	5/26/72	10/3/72*
Memorandum of Understanding Regarding Establishment of a Standing Consultative Commission	12/21/72	12/21/72
Protocol to the Agreement of May 25, 1972 on Prevention of Incidents On and Over the High Seas	5/22/73	5/22/73
Agreement on Prevention of Nuclear War	6/22/73	6/22/73
Protocol to the ABM Treaty	7/3/74	5/24/76
Threshold Test Ban Treaty	7/3/74	
Treaty on the Limitation of Underground Nuclear Explosions for Peaceful Purposes	5/28/76	
Treaty on the Limitation of Strategic Offensive Arms	6/18/79	
Agreement for Improving 1963 and 1971 Direct Communication Link ("Hot Line")	7/17/84	7/17/84

* Expired by its terms on October 3, 1977

APPENDIX II

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1984

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
Afghanistan		P	S		P	P		P	
Algeria		S							
Antigua and Barbuda			P (1)	P	P (1)	P (1)	P (1)		P (1)
Argentina	P	S	P	S		P	P	P	P
Australia	P	P	P		P	P	P	P	P
Austria		P	P		P	P		P	
The Bahamas		P	P	P	P		P (1)		
Bangladesh					P				P
Barbados			P	P	P		P	P	
Belgium	P	P	P		P	P	P	P	P
Belize							P (1)		
Benin		P			P	S		P	S
Bhutan		P					P	P	
Bolivia		P	S	P	P	S		P	S
Botswana		P	S		P	P	P (1)	S	
Brazil	P	P	P	S(2)		S	P	P	P
Brunei			P (1)		P (1)	P (1)		P (1)	P (1)
Bulgaria	P	P	P		P	P	P	P	P
Burkina		S	P		P		P		
Burma		P	P			S	P	S	
Burundi		S	S		P	S		S	
Byelorussian SSR		P	P			P		P	P
Cameroon		S	S		P	S			
Canada		P	P		P	P	P	P	P
Cape Verde		P			P	P		P	P
Central African Republic		P	S		P	P	P	S	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1984 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	No Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
Chad		P			P				
Chile	P	P	P	S (2)			P	S	
China	P		P	P (3)			P	P	
Colombia		S	S	P	S	S		P	
Congo (Brazzaville)					P	P		P	
Costa Rica		P		P	P	S		P	
Cuba	P					P	P	P	P
Cyprus		P	P		P	P	P	P	P
Czechoslovakia	P	P	P		P	P	P	P	P
Denmark	P	P	P		P	P	P	P	P
Dominica			P (1)		P	P (1)	P (1)	P (1)	P (1)
Dominican Republic		P	P	P	P	P	P	P	
Ecuador		P	P	P	P		P	P	
Egypt		P	P		P		P	S	P
El Salvador		P	P	P	P		S	S	
Equatorial Guinea					P	S			
Estonia							P		
Ethiopia		S	S		P	P	P	P	S
Fiji		P	P		P		P	P	
Finland	P	P	P		P	P	P	P	
France	P		P	P(3)S(4)			P	S	
Gabon		P			P				
Gambia		P	S		P	S	P	S	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1984 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	No Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
German Democratic Republic	P	P	P		P	P	P	P	P
Germany, Federal Republic of	P	P	P		P	P	P	P	P
Ghana		P	S		P	P	P	P	P
Greece		P	P		P	S	P	P	P
Grenada			P (1)	P	P	P (1)	P (1)		
Guatemala		P		P	P	S		P	
Guinea						S			
Guinea-Bissau					P	P		P	
Guyana			S				P (1)	S	
Haiti		S	S	P	P			S	
Holy See			S		P		P		S
Honduras		P	S	P	P	S		P	
Hungary	P	P	P		P	P	P	P	P
Iceland		P	P		P	P	P	P	S
India	P	P	P			P	P	P	P
Indonesia		P	S		P		P	S	
Iran		P	S		P	P	P	P	S
Iraq		P	P		P	P	P	S	S
Ireland		P	P		P	P	P	P	P
Israel		P	P				P		
Italy	P	P	P		P	P	P	P	P
Ivory Coast		P			P	P	P	S	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1984 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
Jamaica		S	P	P	P	S	P	P	
Japan	P	P	P		P	P	P	P	P
Jordan		P	S		P	P	P	P	
Kampuchea					P	P		P	
Kenya		P	P		P		P	P	
Kiribati							P (1)		
Korea		P	P		P	S		S	
Korea, (Dem. People's Rep.)									P
Kuwait		P	P		S		P	P	P
Laos		P	P		P	P		P	P
Lativa							P		
Lebanon		P	P		P	S	P	P	S
Lesotho			S		P	P	P	S	
Liberia		P			P	S	P	S	S
Libya		P	P		P		P	P	
Liechtenstein					P				
Lithuania							P		
Luxembourg		P	S		P	P	P	P	S
Madagascar		P	P		P	S	P	S	
Malawi		P					P	S	P
Malaysia		P	S		P	P	P	S	
Maldives					P		P		
Mali		S	P		P	S	P	S	
Malta		P			P	P	P	P	
Mauritania		P							

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1984 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	No Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
Mauritius		P	P		P	P	P	P	
Mexico		P	P	P	P	P	P	P	
Monaco							P		
Mongolia		P	P		P	P	P	P	P
Morocco		P	P		P	P	P	S	S
Nauru					P				
Nepal		P	P		P	P	P	S	
Netherlands	P	P	P	P (4)	P	P	P	P	P
New Zealand	P	P	P		P	P	P	P	P
Nicaragua		P	S	P	P	P	S	P	S
Niger		P	P			P	P	P	
Nigeria		P	P		P		P	P	
Norway	P	P	P		P	P	P	P	P
Pakistan		S	P				P	P	
Panama		P	S	P	P	P	P	P	
Papua New Guinea	P	P	P		P		P	P	P
Paraguay		S		P	P	S	P	P	
Peru	P	P	P	P	P			S	
Philippines		P	S		P		P	P	
Poland	P	P	P		P	P	P	P	P
Portugal		S			P	P	P	P	S
Qatar						P	P	P	
Romania	P	P	P		P	P	P	P	P
Rwanda		P	S		P	P	P	P	
St Christopher-Nevis			P (1)		P (1)	P (1)	P (1)		P (1)
Saint Lucia			P (1)		P	P (1)	P (1)		P (1)

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1984 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	No Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
St. Vincent and the Grenadines					P (1)	P (1)	P (1)		P (1)
San Marino		P	P		P			P	
Sao Tome and Principe					P	P		P	P
Saudi Arabia			P			P	P	P	
Senegal		P			P	S		P	
Seychelles			P			P	P (1)	P	
Sierra Leone		P	P		P	S	P	P	S
Singapore		P	P		P	P	P (1)	P	
Solomon Islands			P (1)		P	P (1)	P (1)	P (1)	
Somalia		S	S		P			S	P
South Africa	P	P	P			P	P	P	
Spain		P	P				P	P	P
Sri Lanka	P	P	S		P		P	S	P
Sudan		P			P	S	P		
Surinam				P	P		P (1)		
Swaziland		P	P (1)		P	P	P (1)		
Sweden	P	P	P		P	P	P	P	P
Switzerland		P	P		P	P	P	P	
Syrian Arab Republic		P	P		P		P	S	S
Taiwan		P	P		P	P	P	P	
Tanzania		P				S	P	S	
Thailand		P	P		P		P	P	
Togo		P	S		P	P	P	P	
Tonga		P	P		P		P	P	

P - Party
S - Signatory

APPENDIX II—Continued

STATUS OF MULTILATERAL ARMS CONTROL AGREEMENTS
as of December 1984 (Continued)

	Antarctic Treaty	Limited Test Ban Treaty	Outer Space Treaty	No Nuclear Weapons in Latin America	Nuclear Non-Proliferation Treaty	Seabed Arms Control Treaty	Geneva Protocol	Biological Weapons Convention	Environmental Modification Convention
Agreement Opened for Signature	12/1/59	8/5/63	1/27/67	2/14/67	7/1/68	2/11/71	6/17/25	4/10/72	5/18/77
Agreement Entered into Force	6/23/61	10/10/63	10/10/67	4/22/68	3/5/70	5/18/72	2/8/28	3/26/75	10/5/78
COUNTRY									
Trinidad and Tobago		P	S	P	S		P		
Tunisia		P	P		P	P	P	P	P
Turkey		P	P		P	P	P	P	S
Tuvalu					P		P (1)		
Uganda		P	P		P		P		S
Ukrainian SSR		P	P			P		P	P
Union of Soviet Socialist Republics	P	P	P	P (3)	P	P	P	P	P
United Arab Emirates								S	
United Kingdom	P	P	P	P(3)(4)	P	P	P	P	P
United States	P	P	P	P(3)(4)	P	P	P	P	P
Uruguay	P	P	P	P	P	S	P	P	
Venezuela		P	P	P	P		P	P	
Viet Nam, Socialist Republic of			P		P	P	P	P	P
Western Samoa		P			P				
Yemen (Aden)		P	P		P	P		P	P
Yemen (Sana)		S			S	S	P	S	P
Yugoslavia		P	S		P	P	P	P	
Zaire		P	S		P			P	S
Zambia		P	P			P	P (1)		
Zimbabwe							P (1)		
TOTAL*	32P	111P 15S	92P 30S	29P 4S	127P 4S	81P 28S	128P 2S	104P 29S	54P 18S

P - Party
S - Signatory
* Includes parties that have generally succeeded to treaty obligations.

APPENDIX II—Continued

Footnotes

(1) Based on general declarations concerning treaty obligations applicable prior to independence.

(2) Also ratified subject to preconditions not yet met.

(3) Additional Protocol II

(4) Additional Protocol I

APPENDIX III

ACDA Appropriations for Fiscal Year 1984

The Agency's FY 1984 salary and expense appropriation was $18,628,000.